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**JAPANESE LMEs AND INTERNATIONALISATION:  
A Study of the Internationalisation Behaviour of Japanese  
Leading Medium-Sized Enterprises in the Context of  
Globalisation**

**Ferguson Evans**

**PhD in Business Studies**

**Awarded by Middlesex University**

**July, 2003**

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## Abstract

This thesis is about globalisation and the firm. Specifically it concerns a particular type of firm called here a 'leading medium-sized enterprise', or LME. This term is derived from the Japanese '*chuken kigyo*', which is used in Japan to distinguish the LME from small and medium-sized firms on the one hand and large firms on the other. LMEs are not exclusive to Japan, but they thrive there. The thesis establishes the importance of the LME as a (hitherto neglected) concept and business type, and analyses the conditions in Japan that have favoured the emergence of such firms there. Subsequently the investigation employs the Japanese LME to illustrate the approach to globalisation of this particular kind of firm. Apart from being medium-sized and a leader in its self-determined area of business, the LME is characterised by being independent and highly specialised in its core competence, to which it has devoted considerable time and effort. Deriving from and substantiating its particular character is a mode of operation and strategic philosophy called here 'articulation', which is an incremental approach applied first to the LME's domestic development and subsequently to internationalisation.

The type of firm discussed here is the manufacturing LME and the form of internationalisation analysed is foreign direct investment (FDI). In contrast to the large transnational corporation (TNC), the smaller LME is hypothesised to be more prone to favour proximity in its inaugural FDI endeavours. So the adjacent multinational region of East Asia is introduced as the potential initiating location for FDI by Japanese LMEs. Within this region, Taiwan is posited as the representative of 'super proximity' because of the high degree of complementarity it is deemed to have with internationalising Japanese LMEs. An aggregate sample of 110 Japanese LMEs which have invested in Taiwan are compiled and analysed to see how this investment has contributed to shaping their globalisation strategies. From this aggregate sample, five case study LMEs are abstracted for more detailed



examination of the motives, strategies and regional impacts (contribution to globalisation) of internationalising LMEs.

In order of priority, this research has been conducted in Japanese, English, Chinese and French. In fact, it could not have been started without knowledge of at least written Japanese and Chinese. The first contribution to knowledge of this thesis, therefore, is that it brings to light information and materials not readily available to Westerners not conversant with these languages. In addition, the concepts of the LME and articulation have been introduced into accounts of the internationalisation of the firm, and also employed as analytical tools to show that the process of internationalisation by the smaller, specialised firm (as opposed to the large, multifunctional TNC) is accomplished in a manner distinctive to itself, because of its assertive concentration on its core competence, and despite the constraints of size and scope imposed upon it. This thesis also demonstrates that Japanese LMEs make a distinctive contribution to the on-going process of globalisation, by their (generally positive) impacts on the overseas locations in which they operate, and by helping to shape the economic integration of the East Asian region.

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## **List of Abbreviations**

AHL	Advanced Healthcare Ltd.
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of South East Asian Nations
BOJ	Bank of Japan
CEPD	Council for Economic Planning and Development (Taiwan)
CETRA	China External Trade Association (Taiwan)
CFB	Chinese family business
CIECD	Council for International Economic Cooperation and Development (Taiwan)
CUSA	Council on United States Aid (Taiwan)
EML	Emergency Measures Law (Japan)
EPA	Economic Planning Agency (Japan)
EPB	Economic Planning Board (Taiwan)
EPZ	Export Processing Zone (Taiwan)
ERSO	Electronics Research and Service Organisation (Taiwan)
ESB	Economic Stabilisation Board (Japan)
ESB	Economic Stablisation Board (Taiwan)
EU	European Union
FDI	Foreign direct investment
FTA	Free trade association

GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GE	General equilibrium
GL	General/Large
GM	General/Medium-sized
GNP	Gross National Product
GS	General/Small
HDD	Hard disk drive
HOS	Heckscher-Ohlin-Samuelson (doctrine)
HOT	Heckscher-Ohlin theorem
HPAE	High-performing Asian economy
IBM	International Business Machines
IDC	Industrial Development Commission (Taiwan)
IMF	International Monetary Fund
IP	Industrial policy
ISO	International Standards Organisation
ITRI	Industrial Technology Research Institute (Taiwan)
JCH	Japan Company Handbook
JDB	Japan Development Bank
JE	English name in Japan and internationally
JETRO	Japan External Trade Organisation

JIS	Japan Industrial Standard
JJ	Japanese name in Japan
JSBC	Japan Small Business Corporation
K.K.	Kabushiki Kaisha (company limited; Japanese)
KMT	Kuomintang (Taiwan; Nationalist Party)
KSK	Kaigai Shinshutsu Kigyo Soran (Survey of Companies Investing Overseas)
LME	Leading Medium-sized Enterprise (Japanese: <i>chuken kigyo</i> )
MEI	Matsushita Electric Industrial
METI	Ministry of Economy, Trade and Industry (Japan)
MHW	Ministry of Health and Welfare (Japan)
MITI	Ministry of International Trade and Industry (Japan)
MKB	Mijojo Kaisha Ban (Unlisted Company Edition)
ML	Manufacturing/Large
MM	Manufacturing/Medium-sized
MM(I)	Manufacturing/Medium-sized (Independent)
MNC	Multinational Corporation
MNE	Multinational Enterprise
MOEA	Ministry of Economic Affairs (Taiwan)
MS	Manufacturing/Small
NAFTA	North American Free Trade Area

NEC	Nippon Electric Company
NIE	New Industrial Economy
Nikkei	Nihon Keizai Shinbun (Japan Economic Journal)
NKJ	Nihon Kaisha Joho (Japan Company Information)
NRI	Nomura Research Institute
OECD	Organisation of Economic Development and Cooperation
OEM	Original equipment manufacture
PCB	Printed circuit board
PRC	Peoples Republic of China
P/S	Private sector
R&D	Research and development
RFC	Reconstruction Finance Corporation (Japan)
ROC	Republic of China (Taiwan)
ROK	Republic of Korea
S&T	Science and Technology
SCAP	Supreme Commander of the Allied Powers
SME	Small and Medium-sized Enterprise
SOE	State-owned enterprise
SP	Super proximity
TC	Chinese name in Taiwan
TE	English name in Taiwan

TM	Taiwan Matsushita
TMA	Taiwan Manufacturing Affiliate
TNC	Transnational Corporation
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
USA	United States of America
VCR	Video camera recorder
VLSI	Very Large Scale Integration
VTR	Video tape recorder
WB	World Bank
WTO	World Trade Organisation
ZNK	Zaika Nihon Kigyo Soran (Survey of Japanese Firms in China [Taiwan])

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## Chapter One

### Introduction

#### 1.1 Preamble

This thesis is about globalisation and the firm. More specifically it is about the internationalisation of a certain type of firm called a leading medium-sized enterprise (LME) in a globalising setting. The term LME is a free translation of the Japanese *chukun kigyō*. It is often used in Japanese popular literature to indicate a company which has broken out of the small business mould because of the superiority it has attained in production and organisation based on a narrowly defined core competence, while still being of modest size rather than large. Until recent times, the Japanese LME has been assumed to be a manufacturing company, and this is the type of LME under consideration here. It has a substantial presence in the Japanese economy (Nakamura, 1990). Its homologue also flourishes in Germany (Simon, 1996), and to a lesser extent in France (Gélinier, 1996), the United States (Kuhn, 1985), and worldwide in general (1).

The application of globalisation in this text is restricted to economic globalisation. This can be construed in two ways, both of which are pertinent here. First, it is the positive act of development by the large corporation, for example, as it disperses its various functions, as deemed appropriate to its advantage, on a worldwide basis. Second, it is the phenomenon as experienced by the world community as a whole as the actors act upon it and individual units react in their own fashion - large or small - to the metamorphosing contextual environment. Put another way, globalisation can be seen as essentially an integrative process. Moreover, it is not only characterised by worldwide integration but also by more concentrated and pronounced regionalisation. This being so, the cross-border, multinational region is a factor to be considered in the internationalisation of the firm within a framework of globalisation. Thus, in this case, the East Asian region is hypothesised to feature significantly in the internationalisation of the Japanese LME.

Economic globalisation can have various manifestations, and the one forming the basis for the investigation here is foreign direct investment (FDI). So, in examining how these manufacturing LMEs internationalise, the region is studied as a potential initiating location for this process. In other words, the question is posed as to whether proximity is relevant, both as a consideration in the initial internationalisation of the firm, and as an element in the evolving spatial structure of the global economy. To give sharper definition to proximity, moreover, Taiwan, as one of the two countries within the East Asian region which demonstrates the characteristics of proximity *vis-à-vis* Japan most convincingly, is taken as the starting point. Apart from offering a means for testing the validity of incremental internationalisation in this fashion, this approach is also based on a concept of how LMEs function because of their particular characteristics. This concept is called 'articulation'. As defined in the following pages it signifies an incremental progression of business activity predicated on the LME's intensive dedication to its core competence. This thesis is an inquiry into how the LME achieves a presence in the global arena through articulation, and how in that process the (regional) spatial structure of globalisation is shaped.

## **1.2 Personal Experience**

My own experience is the main impetus for researching this subject. I lived in Japan for twenty-one years from 1969 to 1990, during which time I taught, wrote, translated and – from the early 1970s to the mid-1980s – worked for two small Japanese firms, before becoming a consultant for developers of new products seeking overseas buyers. These latter occupations involved considerable travel in the East Asian region, notably the Philippines, Hong Kong, Malaysia and Thailand, negotiating and carrying on business with firms in these countries for the Japanese side. This was the background for my knowledge about Japanese smaller firms and the East Asian region.

### **1.2.1 Encounters with Japanese SMEs and LMEs**

One thing that interested me from the start was how individual Japanese businessmen and firms differed from the stereotypes so often inferred in the literature. Here, often,

were highly individualistic characters who hardly embodied the image of subservient subcontractor, although subcontracting was in fact what many of them did. However, the independent spirit so often remarked is important because, as will be seen, this is the source of many an LME. But first it is worth noting the kind of company that does not make it to LME status the better to appreciate what the LME is. These can be illustrated by three examples from my experience.

*Company A* produced aluminium castings for machinery and also made sporty aluminium wheels on the side because the young president had once been a national racing driving champion. He had separated from his father, who was in the same line of business and had flourished in the 1960s when demand for simple castings was high. At its peak, the father's company had 150 workers, but by early 1970s it was down to twenty. The son's company had about thirty. There are two points to note here because, as will become apparent, they are what most LMEs do not do. First, family unity within one company was lost. Second, the father's company failed to build on its earlier success through the development of original technology.

*Company B* was the developer of an activated carbon device intended chiefly for water and air purification. It had some of the assets of an LME in the making: a self-evident core competence plus a devoted and capable engineering staff, to name but two. It had good publicity, with one of its units clearly visible cleaning the Imperial Moat in Tokyo. And it had signed a licensing agreement with a fairly large British water treatment firm. Its problem was egregious management which precipitated total financial disarray. This combination of promising technology and operational incompetence caught the attention of the loan sharks, gangsters or *yakuza* in fact, who performed the classic act of fleecing the owners and then selling off to a member company of one of Japan's largest *keiretsu* (group).

*Company C* was in the process of developing laser technology for application to ceramics. The technology was well advanced and largely proven, but the president was short of cash and encountered indifference from the banking community, both the local banks and the so-called 'city' (nationwide) banks. He attempted to make good this gap by collaborating with one of Japan's largest electronics firms, which was only too

happy to oblige by seconding four of its engineers. This, needless to say, was the start of the haemorrhaging of know-how and Company C's eventual demise.

All three companies were representative of the heart of what the Japanese rejoice in calling *monozukuri* (making things) because they believe that this is where Japan's strength lies, not only among the very large household names but also the tiny workshops starting up in the backstreets (cf. Fuji Sogo Kenkyujo, 1998; Hashimoto, 2000). To this day there is a wealth of literature describing both the honest tradesman in the urban network clusters of Ota-ku in Tokyo and of Higashi-Osaka (cf. Ueda *et al*, 2000), which Company A represents, and the go-it-alone start-up, which Company C tried to become (cf. Hibi, 2002). The commitment to *monozukuri* is likewise the foundation of successful companies which became LMEs, having averted the pitfalls illustrated by the above small firms. I was to encounter a number of these too, and most of them are still prosperous today. One such LME, although I was not to think of it in that way at the time, was Rheon Automatic Machinery.

*Rheon Automatic Machinery* ([www.rheon.co.jp](http://www.rheon.co.jp)) started life in 1963 as an incrusting machinery maker. By the time I knew of it in the early 1970s it had reached the point where it was just beginning to become a significant manufacturer of small baking machines for installation at bakers' shops, and other food-processing machinery. It was located in unfashionable, provincial Utsunomiya to the north of Tokyo. The country at the time most prominent for this kind of baking equipment was West Germany. So the president, Torahiko Hayashi, resolved to crack that market, not least to enhance his company's image back home in Japan. He studied German and frequented the trade shows there, soon winning orders because of the quality of his product. Today Rheon leads the industry in Japan with prepared food-production systems developed in-house (JCH, 2002). In Japan it has 683 employees and has been listed on the Tokyo Stock Exchange since 1987. Abroad it has three consolidated subsidiaries, two in the United States and one in Germany, plus a sales office in Taiwan. Unlike Company A, it developed a unique area of expertise; unlike Company B it was competently managed; and unlike Company C it retained the resilience and capacity to make it on its own. This is an LME. It is the type of company that will be studied in this thesis.



### 1.2.2 Nomura Research Institute and Hideichiro Nakamura

I first became aware of the term *chuken kigyo* (LME) when preparing a paper on small and medium-sized enterprises (SMEs) for a conference at Newcastle University some twenty years after my first contact with Rheon (Evans, 1995). Apparently, Japan's best-known research company, Nomura Research Institute (NRI), had been publishing analyses of *chuken kigyo* on an annual basis since the mid-1970s. Actually, however, NRI had a different picture of them than the one to be elaborated here, at least by the 1990s. In its 'LME White Paper' for 1992 it equated the emergence of LMEs with the start of private venture capital companies at the beginning of the 1970s. According to NRI, LMEs are characterized by: 1) having a high ratio in the service industries as opposed to manufacturing and wholesale, 2) being relatively young, typically established since 1965, 3) working under family management, 4) showing high sales profit ratios, 5) being headquartered in Tokyo (over 50% of them), and 6) tending to go public. In stressing the crucial relevance of LMEs for the Japanese economy, NRI advocated what it called 'middle-sizing'. Not only must large firms dismantle their burdensome structures as they 'downsize', but small companies should reinforce their foundations and coalesce with others in order to 'upscale' for optimum effect (NRI, 1992a, b).

This, I was to discover, was a 'modern' version of the theme particularly tailored to the prevailing concerns of the early 1990s when it was becoming apparent that the economic 'bubble' had burst, and the realisation was mounting that there was a need for national economic and individual corporate restructuring. NRI was, in fact, promoting its particular vision of the LME as a salient model for the corporate restructuring deemed necessary. Nevertheless this depiction did capture some of the elements of the LME that were to become familiar to me, especially the lean quality of the organisation and the family ownership and management. As has already been implied, however, the emphasis on service industries over manufacturing is directly contrary to the image I was to acquire from Hideichiro Nakamura.

At the beginning of the 1960s, as a young scholar, Nakamura conducted a survey of what he thought were going to be SMEs (*chusho kigyo*) in what he took for granted as a dual economy of small and large firms, which was at the time, and still mainly is, the

received opinion as to the nature of Japan's economic structure. But as he progressed, he became increasingly aware that a significant proportion of the companies he was looking at were different from the average run of SMEs. They were predominantly in manufacturing, and the fact that he was noting this in the early 1960s, put many of their origins considerably in advance of NRI's date. Based on his findings, Nakamura wrote a book on *chukun kigyō* in 1962, which he subsequently revised in 1990, by which time he saw no reason to recant his earlier stance. On the contrary, the role of LMEs in the Japanese economy had been augmented. For Nakamura, Japan does not have a dual economy; there is a third element between the two extremities. What is more, the foundation of the LME's character is not so much measured in terms of size or quantity, but in quality and innovation. The emphasis was on good engineers coupled with a small management staff. He has Sony's founder Ibuka as saying, the aim should not be to take the large firms as a model, but to create a completely different kind of company (Nakamura, 1990:6). Sony is large now, of course, but its unique business style still bears the hallmarks of what Nakamura saw in the LME. The LME as he saw it was to come increasingly to the fore as the high growth period of the 1960s took hold. Under these dynamic conditions there was a general flowering of innovation, a transformation of the market structure, and advancing specialisation of production due to the deepening of the division of labour in the Japanese society. Thus was the stage set for the domestic evolution of the Japanese LME.

### **1.3 Reasons for this Study**

Nakamura's forte is in discerning and describing a given economic phenomenon. His writing does not aspire to expansive theorising. Moreover, it sticks almost exclusively to recounting what he observes of the activities of LMEs within Japan. However, many of them have over the past three or four decades extended the logic of their expertise beyond Japan, so this in itself offers the first reason for examining their internationalisation process. In this light they can be regarded as a particular type of *Japanese* corporation which can be studied to gain insights into how they, having been first generated under the conditions of a certain economic structure at a certain time, have translated their competitive advantages into lucrative overseas ventures.

But there are also reasons why such a study can have implications beyond those inherent in one country's experience. For internationalisation theory itself has likewise tended towards dualism. On the one hand there is 'the large'. In this interpretation, commentators stress that gathering momentum has been fuelled by rapid and continuous innovation in manufacturing, transportation and telecommunications, enabling the large transnational corporation (TNC) to benefit from economies of scope and scale and an increasingly discriminating division of labour, typically demonstrated by the retention of skill- and knowledge-intensive operations at home base while the labour-intensive tasks are farmed out to low-income developing countries (Casson, 1995). The early stages of internationalisation in the 1950s and 1960s, therefore, were characterised by integrating multinationals, often (although by no means always) in high-technology industries. This is essentially what conventional economic theory of international business was formulated to describe and interpret. Oligopolies investing abroad to exploit firm-specific assets (Hymer, 1960) and multinationals capable of internalising market failure (Buckley and Casson, 1976; Dunning, 1979) typified this preoccupation. On the other hand there is 'the small'. Change in a modernising world has facilitated the cross-border mobilisation of the smaller firm, obliging internationalisation theory to incorporate the distinctive elements of this kind of organisation (Buckley, 1979; Buckley et al., 1988). It is noted that, in fact, many international investors are small and weak (Wells, 1983). Far from exploiting strengths, the act of FDI can be interpreted as an attempt to access external resources to offset weaknesses in which the "linkages via FDI are considered to be a strategic choice that enhances, maintains, or restores the investor's competitiveness in a globalised market, rather than a profit-seeking motive aimed at extracting economic rent from a foreign market by exploiting its own strategic assets" (Chen and Chen, 1998:446).

This exaggerates to an extent, but it is a fact that, with some exceptions (cf. Steinmann *et al.*, 1980; Brooksbank *et al.*, 1992; Roth, 1992), internationalisation theory has inclined toward the polar extremes of large and small. There is nothing wrong with this, because theory creation draws on singular characteristics to gain effect (Krugman, 1995), but it nevertheless both subsumes too much in generalisation and leaves too much unaccounted for. Rapid change is partially to blame for this, so that "[t]he difficulty in explaining these developments is not that conventional theory is fundamentally flawed, but simply that it is not yet rich enough to do justice to the

complexities that arise in international business operations" (Casson, 1995:1). Even so, lack of richness is also evident regarding circumstances which have existed for some time. Medium-sized companies, LMEs among them, have been internationalising for decades and scant attention has been afforded them as a distinct group even though much information about them is readily available. This suggests three reasons for studying them in the interests of adding to the theoretical understanding of evolving globalisation.

**Reason 1:** *LMEs already have a considerable and distinctive international presence*

Most of the literature on internationalising medium-sized enterprises is non-theoretical, but what has been written is often strikingly positive: Kuhn (1985) has portrayed them as engines for growth, Drucker (1991) has noted that they are responsible for most of U.S. exports, Rommel *et al* (1995) have depicted them as the prototype for modern business activity, and Simon (1992, 1996) has asserted their aptness in a globalising environment. This is, needless to say, a very generalised observation based on differing definitions of medium-size in terms of scope and scale, a matter to be addressed in the following chapter.

**Reason 2:** *It is possible to abstract the internationalising LME as a category distinguishable from other types of firm and therefore employ this category to explore the globalisation process from a different perspective*

Business theory has persisted with the dichotomy of large and small firms. Typically, if the small firm (or small and medium-sized enterprise) is determined by number of employees – while bearing in mind that conceptual and administrative references for definition are also applied with or without the employee factor – this type of firm has a maximum of employees ranging between, say, 249 (U.K.) and 500 (U.S.). So, theoretically at least, a firm with 600 employees is lumped together with one having 100,000. Moreover, in adhering to this dichotomy, theory about the internationalisation of small firms has on occasion arrogated to itself medium-sized companies of considerable substance with implications regarding the potential of less endowed companies which are inappropriate. The four Swedish firms analysed by Johanson and

Wiedersheim-Paul (1975) are clearly of this ilk. In fact they could be classified as LMEs.

**Reason 3:** *There is a large body of information readily available concerning LMEs which can be used to further the understanding of the globalisation process*

Many LMEs are listed on stock exchanges, so they are obligated to make public corporate information on a regular basis. In addition, neutral institutions provide background materials about them and prominent unlisted companies. LMEs are also intent on getting their message across, so they produce catalogues. Increasingly, this is complemented by company home pages on the Internet plus information produced by analysts and the like, also available for scrutiny in real time. All this means that, unlike in the case of most SMEs for example, there is a substantial pool of resources to work on – even for firm-focused studies – outside any direct contacts that may be made.

## **1.4 Structure of Thesis**

The agenda of the thesis can be presented as the set of questions given in Fig. 1.1, and the structure of the thesis used to deliver this agenda can be envisaged as comprising three layers of investigation and supporting evidence, which together constitute a chain of evidence used to demonstrate the complete argument. The first layer, comprising the next four chapters, present the conceptual and substantive context, while the second and third layers, comprising Chapter Six and Chapter Seven constitute respectively quantitative and qualitative analyses. Specifically, the procedure is as follows. The chain of evidence in layered form is also depicted in Fig. 1.2.

*Chapter Two* outlines two of the three main concepts driving the thesis, these being the LME and articulation, locating them in appropriate theoretical debates.

*Chapter Three* recounts the evolutionary background leading to modern theorising concerning the third main concept of globalisation, and seeks to justify the role of the LME, which at some point after attaining this status embarks on internationalisation, as one means for elucidating the globalisation process.

*Chapter Four* shows how the development of the Japanese industrial structure, especially after the Second World War, has been conducive to the evolution of LMEs in that country.

*Chapter Five* discusses the relevance of the East Asian region to the internationalisation of Japanese LMEs, and then repeats the process with respect to Taiwan as the country in closest proximity to Japan, and a destination of particular importance for LME international evolution.

*Chapter Six* is a quantitative analysis based on an aggregate of 110 Japanese LMEs with at least one manufacturing investment made in Taiwan between 1961 and 1990. This is to demonstrate how these companies have used and benefited from Taiwan as an investment location in their internationalisation process, by way of accumulated secondary data, and through comparison with other Japanese companies investing there and with one large transnational corporation.

*Chapter Seven* abstracts five LMEs from the aggregate to function as full firm-level case studies for the qualitative analysis. The point here is to discern to what extent the case study LMEs follow the pattern indicated by the quantitative analysis. In addition, the case study approach is employed for looking in detail at *how* they did it, and from this to gauge the LME's contribution to integration and the relevance the LME concept can have for internationalisation and globalisation theory.

*Chapter Eight* is the conclusion which draws together the findings derived from the quantitative and qualitative analyses.

The motif binding all this together is the argument that the LME is a distinctive type of firm in the Japanese economy, which

- (a) has a distinctive approach to internationalisation/globalisation (captured in part by the notions of articulation and proximity), and
- (b) via this approach is making a distinctive contribution to regional/global integration.

**Fig. 1.1 Question Sequence**

**\* What is an LME?**

The LME is a composite of size, type and stage and characterised by (a) a powerful linkage between firm and core competence, and (b) its mode of functioning.

**\* How does the LME function?**

Its business approach is based on a strategic philosophy called here 'articulation', which is perceived as an incremental progression predicated on the LME's core competence.

**\* Why is the LME, thus defined and elucidated, deemed a potential contributor to the elaboration of globalisation theory?**

The mounting complexity of the globalisation process calls for clearly defined analytical tools like the LME for probing aspects of the multidimensional nature of globalisation.

**\* What is the background of the specific LME employed in this thesis?**

Japan, because its particular industrial structure and recent economic development have contributed significantly to the evolution of the LME domestically.

**\* As the immediate, definable multinational region to Japan, what relevance does East Asia have for the internationalisation of the Japanese LME?**

For the past thirty to forty years East Asia has been the world's fastest growing regional economy, both offering the Japanese LME a proximate base for its initiating internationalising endeavours and benefiting from the LME's contribution to its own economic progress.

**\* Is there any particular member country of the East Asian region that can be cited to further highlight this process of globalisation through regionalisation ?**

Taiwan, because it has been involved from the start of the progress of the Japanese LME internationalisation as they address the globalising environment.

**\* What is the essence of this internationalisation/globalisation process?**

Based on its distinctive emphasis on core competence and strategic philosophy of articulation, the Japanese LME has both advanced its own expansion through progressive internationalisation (coincidentally contributing to regional integration of East Asia and to the industrial upgrading of the individual countries within the region).

**Fig. 1.2 Chain of Evidence**

<p><b>Layer One</b></p> <p><i>Long and direct first-hand experience with Japanese business practices in East Asia, establishing awareness of the LME phenomenon</i></p> <p><i>Theoretical, marketing and popular literature in Japanese, English and French describing LMEs or their equivalents</i></p> <p><i>Information in the said literature of sufficient detail to justify the identification of a distinctive manner of functioning which distinguishes the LME from other company categories</i></p> <p><i>The body of theoretical literature concerning trade, internationalisation and globalisation which can be used to place the LME within a framework of globalisation theory</i></p> <p><i>Narrative data drawn from economics, economic and political history, official government reports, and journals to demonstrate the particular evolution and quality of Japanese LMEs</i></p> <p><i>Similar sources of information plus international institutional sources to depict the multinational region of East Asia as the immediate arena for initial internationalising of Japanese LMEs, and within that, of Taiwan as the epitome of 'super proximity' (SP)</i></p>
<p><b>Layer Two</b></p> <p><i>Data sourced in Taiwan in Japanese, Chinese and English indicating the existence and nature of Japanese firms investing in Taiwan</i></p> <p><i>Supporting materials in Japanese and English, and sourced in Japan, for determining which of the above firms can be classified as LMEs</i></p> <p><i>Evidence in Japanese, Chinese and English to show when and how a comprehensive sample of these LMEs have invested and subsequently performed in Taiwan and worldwide</i></p>
<p><b>Layer Three</b></p> <p><i>Interviews conducted in Japanese or English with five case study LMEs in Taiwan and Japan, to establish motives, practices and impacts of internationalising LMEs in the globalising environment.</i></p> <p><i>Supporting materials in the form of catalogues, corporate histories, reports received from these LMEs and their affiliates in Japan, Taiwan and the U.K, together with their home pages on the web.</i></p> <p><i>Additional third party information from newspapers, journals and the Internet to aid interpretation of behaviour of the case study LMEs</i></p>



**Fig. 1.3      LME 'Globalisation' According to the Propositions**

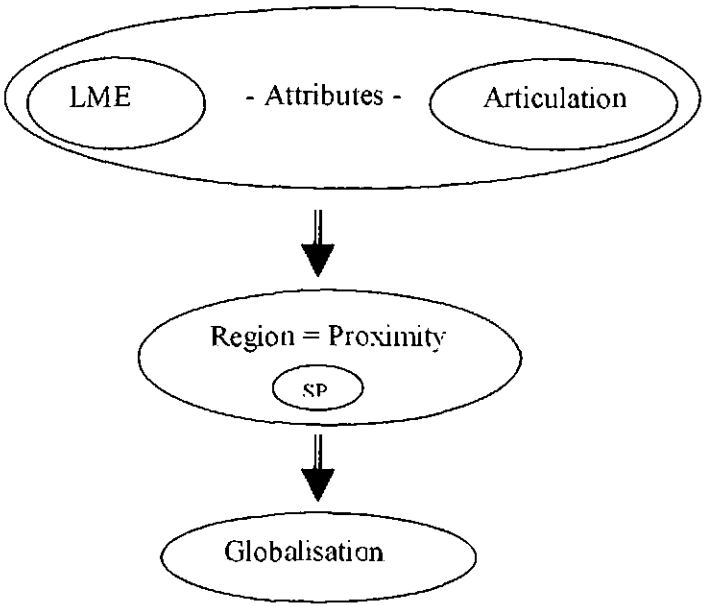


Fig. 1.3 neatly summarises the course of the argument as presented. LMEs are possessed of highly distinctive attributes and core competences, which they combine with a strategic philosophy of articulation, first domestically and then overseas. The heart of such articulation is a measured approach to internationalisation which favours incremental steps, hence the significance of the immediate multinational region as the LME addresses internationalisation, as well as the attraction of anywhere within the region that can represent 'super proximity' (SP). These factors together – the LME, its special attributes, its articulation, the role of the region and proximity – when blended present a distinctive approach to internationalisation, with specific consequences for the region(s) in which LMEs become embedded. Not having the scope of the large transnational corporation to achieve 'globalisation' in the full sense of the first definition of globalisation given above, the LME nevertheless manoeuvres for global reach from a proximate base.

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**Notes**

(1) In the list of 'small' firms Forbes publishes every year, for example, there are not a few which could be classified as LMEs.

## Chapter Two

### Concepts, Aims and Methodology

#### 2.1 Introduction

Economics is a science of thinking in terms of models joined to the art of choosing models which are relevant to the contemporary world. It is compelled to be this, because, unlike the typical natural science, the material to which it is applied is, in too many respects, not homogeneous through time. (Keynes, 1973:296).

The theory of the internationalisation of the firm is, as the above quotation suggests, of necessity a model constantly subject to revision because of the ceaseless temporal and spatial metamorphoses it undergoes. The model as represented here is an attempt to suggest updated modifications to internationalisation theory in the light of recent developments. It comprises three concepts: the LME (the actor), articulation (the key element of strategy), and globalisation (the evolving environment). These concepts in turn each generate a proposition which in turn provoke research questions, which are employed to take the discussion of the concepts forward. This chapter is devoted to exploring the nature of the first two of these concepts, while the third will be discussed in terms of its theoretical progression and its relationship to the other two in Chapter Three.

The LME, articulation and globalisation are the concepts that drive the thesis. In addition, two other elements to be borne in mind are the nation-state and the multinational region. The nation-state is important with respect to globalisation in the first instance because it functions as a prime instigator of domestically generated industry and business structures: "Differences in national economic structures, values, cultures, institutions, and histories contribute profoundly to competitive success" (Porter, 1990:19). This thesis postulates that the LME has flourished particularly well in Japan, so it is necessary to investigate the recent history and circumstances of Japan's industrial structure to find out how this has come about, a task taken up in Chapter Four. As for the multinational region, it is commonly deemed to play a significant integrating role in the process of globalisation, and when that region is also the one in which a

particular nation-state finds itself, it may also be hypothesised to embody advantages of *proximity* for the firm embarking upon internationalisation. Chapter Five presents the East Asian multinational region in the globalisation context by assessing to what extent it fulfills this function. Proximity can be regarded as one factor facilitating internationalisation. So the relevance of proximity – geographical, cultural and historical – is afforded further focus by the inclusion of Taiwan as potentially the host country closest to Japanese firms within the region. Hence, the East Asian region and Taiwan within it form the backdrop for analysing how the specifically defined LME articulates its internationalisation course. Or put another way, this thesis explores the extent to which proximity influences the process of internationalisation of medium-sized firms which are both bounded in their options but nevertheless possessed of exceptional attributes. But to understand how all these parts fit together it is first necessary to define the LME and explain how it is deemed to function. This is followed by an outline of the aims of this thesis and a discussion of the methodology in general terms.

## **2.2 Leading Medium-sized Enterprise (LME)**

### **2.2.1 Overview**

The leading medium-sized enterprise (LME) is the proactive concept playing the central role in this thesis. The term is actually a free translation of the Japanese term *chuken kigyo* first employed by Evans (1995) in an unpublished paper and subsequently adopted by Whittaker (1997:31) (1). This thesis employs the *chuken kigyo* concept to illustrate in detail some important emerging aspects of business internationalisation not usually emphasised in the literature of the multinational firm, which tends to be preoccupied with the 'giant' firm. However, the contention here is that the LME is not restricted to Japan; there are firms bearing its hallmark throughout the world. In some cases their particular significance has been recognised, albeit under different labels than *chuken kigyo* or LME, and bearing traits peculiar to the business environment where they are chiefly perceived to exist, such as Simon's (1992, 1996) 'hidden champions' of Germany, G  linier's (1996) 'moyennes entreprises patrimoniales' of France, and Kuhn's (1985) 'mid-sized firms' which compete with the giant corporations in the United States.

More often, however, in the orthodox dualistic approach, which simply contrasts large and small, they are either subsumed under the large enterprise rubric or arrogated to the cause of small-firm theory. It is first essential, therefore, to elaborate on the concept in a general sense and to show how this kind of firm has manifested itself in reality.

## **2.2.2 The LME as Conceptual Category**

### ***(i) LME Properties***

The LME is defined here as an independent, medium-sized business unit, capable of accessing external operational resources while maintaining a tight inner management control, and intensively concentrated on its core competence as it strives to optimise its bounded market scope. The concept straddles the ground between positive and normative in that, for example, it has been both described as an existing phenomenon as well as being prescribed as an objective ideal. By incorporating the word 'leading' (1) it transcends mere verifiable definition to become, in part, an idealised abstraction as well as being a value judgement implying competitive success. However, value judgements can be circumspect if applied "without examining precisely how and at what point they enter a piece of economic reasoning" (Blaug, 1992:121). So while bearing in mind the normative aspects of the LME concept, the following is an attempt to depict the critical LME characteristics in positive, descriptive terms.

*Status:* The LME is an independent medium-sized company; this independence being manifested more in its power of decision-making concerning basic policy (Nakamura, 1990:176) than in its command over capital, although tight control over the latter is usually likewise deemed essential. This is not independence in an absolute sense, but independence within a framework the LME endeavours to define for itself. It functions within networks of degrees of dependence on others while being capable of a relatively wide freedom of manoeuvre presaged on its products and expertise and the fact that it holds a leading position in its defined area of business.

*Size/Type/Stage:* The LME is defined here as a manufacturing firm having from 200 to 1,999 employees. This is their size *domestically* as of 1999 when research of specific companies commenced, and evidence available suggests that a large majority of the

Japanese LMEs cited in this thesis were of very similar size when they started to internationalise by investing in Taiwan and elsewhere. What this implies is that the LME concept indicates both *a type of firm* and *a stage of development* which it has attained, but also which it could outgrow (or, indeed, fail to sustain) (2). The fact that the concept denotes a stage as well as a type confers on it a dynamic quality, demonstrating that the LME is both an actor bringing about change and an embodiment of change. The lower figure marks a division between small and medium-sized, and is the demarcation line adopted for manufacturers by the Bolton Committee in Britain, for example, as well as Nakamura in Japan. Companies with more than 200 employees are deemed here to have reached a point where they can work to a business strategy through which they achieve leadership in a defined sphere of production, which goes beyond the simple 'niche' role of producing "something marginally different" (Storey, 1994:11). The upper limit of 1,999 is around the point where firms start to shed, although by no means entirely lose, the distinctive LME qualities described below. It has been observed that "in practice, researchers have to tailor their definitions of a small firm according to the particular groups of small firms which are the focus of interest" (Storey, 1994:16). The same should apply to 'large' firms given their substantial variety in size (and activity), and it is certainly necessary when discussing medium-sized enterprises which straddle the two according to definitions as befits the research objectives.

With respect to these definitions, too, it has been noted that "[a] 'firm' is by no means an unambiguous clear-cut entity; it is not an observable object separable from other objects, and it is difficult to define except with reference to what it does or what is done within it" (Penrose, 1959:10). Penrose was talking about the firm in general and thought that the fact that analysts could choose the characteristics they wanted to describe the firm could lead to confusion. The intent here, however, is a deliberate exercise in tailoring and selection of characteristics in order to fashion a clearly defined analytical tool. The LME, as the type of firm in question, is abstracted from the numerical continuum and ascribed certain functioning characteristics to further set it apart. Cardinal among these is its attachment to and its constant association with its core competence in all the latter's *tangible* as well as *intangible* aspects. By way of contrast, Chandler (1990) sees the growth of the firm as the mastering of opportunity in which products and lines are adopted and discarded as their respective potential rents rise and decline, so that the firm's ultimate *raison d'être* is itself as an organisation and nothing

but that. But for the LME as described here, the core competence in all its aspects is inseparable from the firm; it is inalienably conjoined with the corporate organisation so that together they constitute a unified conceptual whole. This is, as it were, in order to harden and sculpture the outlines of the conceptual perspective. It must be borne in mind, moreover, that the aim of this research is to ascertain how firms distinguishable as such *at a given time* have internationalised, and that the very LME characteristics and the act of internationalisation can have been instrumental in subsequently taking the firm beyond the size definition as given here.

*Operation:* The LME is a professional business organisation in the sense that it is directed towards specific targets which do not change erratically on personal whim, while it has a demonstrably more compact founder/agency/employee relationship structure than is usually associated with large corporations. Specifically, the capital of the founder and his family and/or associates may well be transmitted over two to three generations and more, which presupposes a familial ethic based on a commitment to serve the enterprise rather than being served by it and is demonstrated in the generational transfer of the technology and know-how to realise this (Gélinier, 1996). With expansion of operations, resort may be made to the capital market, albeit subject to ultimate family/associate control. This instinct for control is also manifested in a strong resistance to separation of power between owner and managerial agent; an attitude which arguably saves on agency costs as firm governance takes on increasing complexity while perhaps sacrificing some sophistication in managerial technique. But it also reduces the risk of agency conflict of interest and is complemented by foreshortened chains of command with employees who, in turn, respond positively to policy aimed at long-term mutual interdependence (Kage, 1991; Simon, 1992; Gabel and Moraw, 1994).

*Product/Market:* The essence of the LME approach to both product and market is a dedication to core competence (Porter, 1980). A core competence is a set of technologies and associated assets that form the basis for the firm's sustainable competitiveness in a given area of business. This calls for simultaneous focusing to enhance market share and leadership status while consciously defining and circumscribing the scope of operations. Technology (as the foundation of the product on the one hand) and intensive customer orientation (as the strategic mode of entry to the

market on the other) are not mutually exclusive alternatives, nor even is one of these stressed to the detriment of the other. Rather, together they form a synergy in which the definition of market essentially comprises two elements: the more traditional one based on product and the more recent one derived from the customers' needs and applications (Simon, 1996:44). So the LME's endeavours in specialist innovation are both technology-driven and customer-driven. But to say that LMEs are specialist is far from positing them, without qualification, merely as complementary furnishers of *niche* products in the way that term is often applied. As Rommel *et al* (1995) point out, *niche* may imply a restricted zone or corner into which a firm may be pushed for lack of technological flexibility. It can be lucrative in certain cases of highly specific demand where, for example, standardization is not viable. However, for this kind of firm – the LME – it should not interfere with volume production in its specialized sphere. It is not filling a gap fortuitously left open; it is serving a specialist market based on the superior technologies and products it has created and maintains. The LME's sphere of operations is better envisaged as a drive for bounded optimisation through singular administration of scope and linkage. The product range may be narrow, but the breadth in terms of customers and/or the depth as represented by the number of single product variants may well not be. As a corollary, in their market definition, LMEs are not geographically confined to one region or country; concentrated market focus may be combined with a international orientation in which the core of competitive advantage comprises the specialized product, the manufacturing process, and the ancillary services. That having been said, it is possible to think in terms of *closed niche* and *open niche* in referring to the combination of product, technology and market; crayons sold to children aged two to eight are closed niche, while electronic motors sold with a wide range of assemblers and with potential for adaptation to new products and amplification of the firm's established area of expertise are open niche. This niche continuum, especially as it concerns broadening potential, is applied below as one means of positioning the LME.

## ***(ii) The LME in Practice***

Nakamura (1990) created the category *chuken kigyo* (LME) because he perceived that this kind of company had characteristics and conducted its affairs in ways which could be distinguished from large corporations on the one hand and small and medium-sized enterprises (SMEs) on the other. These distinctive aspects, *bearing in mind that they are*

*often rather a matter of degree than substantive modification*, can be highlighted under the rubrics of leadership, policy aims and strategy.

*Leadership:* In its initial stage of development, the LME is often under a strong, idiosyncratic founder with a powerful entrepreneurial drive – a Schumpetarian 'innovator'. He produces new products, applies new technologies, uses new materials, develops new industrial sectors. This breed of founder bursts out of the physical and psychological framework of the ordinary SME, surmounting resistance both tangible and intangible, to ultimately service and challenge a wider business world. Early on, too, he is the majority shareholder, leaning on the small majority shareholding group of family and associates, which in turn is active, together with a limited managerial staff, in supervising and controlling operations. Shareholder interests are satisfied because the managers, in the main, are the shareholders. In time the family/associate influence may be diluted; faithful adherence to the philosophy of the company's inner circle may ensure entry by outsiders into what Gélénier (1996) calls the 'famille élargie', or the 'cultural family' as opposed to the biological. This is in fact a centuries-old custom in Japan, where the gifted apprentice is enrolled in the *ie*, or household. Whatever the case may be, however, the point to remember is that, following established practice, LME management – that is, leadership – remains small and compact. This leadership, moreover, continues to espouse and to act on principles geared to sustaining the company's intrinsic identity through the pursuit of classic Weberian bureaucratic ideals of prioritising the future over the present, investment over consumption, and self-financing over liquidation of capital.

*Policy aims:* Over the past fifty years LMEs have been at the forefront of the drive for quality, and this is the leitmotiv which infuses all aspects of their policy. It permeates the decision-making process; it is demonstrated in product development, manufacturing technology and marketing creativity; it is realised in the superior equipment and personnel. As such it is reflected in a determination to come out with products of the company's own original technology and design to achieve a leading position in specific markets defined and explored by the company itself (Kuhn, 1985; Nakamura, 1990). The formula is 'differentiation' x 'excellence' x 'creativity' emanating from originality in products and services + originality in the company's credo and mission (Kage,



1991:77). The exercise is to circumvent market dependence, be it on particular clients or geographical areas, attain quasi-monopolies in crafted demand environments, and build up the strength to counter incursion both by large predators and small opportunists. This calls for a prolonged and exacting focus on relatively stable markets rather than on fashion and boom cycles, and incremental improvements rather than stratospheric leaps. Quality, therefore, is *de rigueur* an essential element of competitive advantage which LMEs strive for in policy. And although they do not seek to outperform in every competitive dimension, they are particularly intent on combining quality with close customer relations together with service (Simon, 1992).

Neither is market leadership deemed purely a quantitative dimension; it also includes such aspects as superiority in innovation, technology, market influence and power. This led Simon (1996) to propose the term 'psychological market leadership', incorporating these attributes along with quality, as the objective to be aimed for in policy and, just as important, the image to be conveyed to the customer. This in turn requires knowing the trends of the customer's needs, as well as being cognizant of the strengths and weaknesses of the LME and its rivals from the customer's perspective. From this analysis, the LME at the top of its game comprehends the boundaries of its potential and consequently senses the proper level at which to target its long-term profit maximization (Kage, 1991; Kuhn, 1985). Such tight-fitting positioning further demands the understanding of a cooperative and flexible workforce. Hence, an indispensable factor in LME policy is ensuring its employees' durable allegiance to and identification with the company's cause, notably through internal training, the devolution of authority, and the rewarding of talent, in preference to hiring outsiders (other than those of exceptional ability), preserving vertical hierarchies, and promotion based on seniority.

*Strategy:* The contention in this thesis is that LMEs in their domestic development and subsequent internationalisation have refined a particular element of strategy called here 'articulation'. The concept of articulation is discussed in more detail below, this section being confined to some generalisations. LME strategy can be summed up as '*bounded flexibility*'. It can be envisaged as a solidly circumscribed '*chamber*' encasing a field of action comprising highly mobile and flexible mechanisms. In broad terms the area of specialization and potential markets have been defined, but within this arena there is

both purposeful and opportunistic flexibility. By way of example, the five Japanese case study firms in this thesis specify their businesses as writing and drawing materials (Pentel), dental materials (Shofu), miniature electronic motors (Mabuchi), drills and other equipment for the manufacture of printed circuit boards (Union Tool), and industrial precious metals (TKK). These are proactive definitions of self-limited general fields, against which the company's distinctive competences and competitive advantages are mapped according to opportunities and circumstance. As these transpire, the LME applies its superior techniques in one or a number of parameters to attack one or a small number of narrow target markets, a practice Porter (1985) refers to as 'focused differentiation'. What is more, most of the mechanisms for achieving this are within the chamber (Penrose, 1959); outsourcing and alliances are largely shunned and high return on capital is sought to sustain the firm's self-determining financial integrity. At the same time, while the general goals are clear, they are rarely spelt out in detail in recognition of the LME's comparative vulnerability to change. Rather than precisely enunciated planning, the LME's approach is nearer to what Mintzberg and Walters (1985) call 'emerging strategy', which "evolves through a process whereby the results of many individual actions come together to form a consistent pattern" (Mintzberg and Walters, 1985:257). So if the chamber is proactive, the mechanisms therein are essentially reactive devices working to find solutions and gain benefits within the bounded scope the chamber affords. This is not a wholesale change of direction, but rather conceding to the necessity for constant, gradual renewal, mobilised from within, or – even more incrementally – the continuous process of improvement known in Japan as *kaizen*.

### ***(iii) The LME and the Theory of the Firm***

Fransman (1999) classifies some of the more prominent theories of the firm into two groups. The first of these sees the firm as a means for solving information-related problems. These can arise due to bounded rationality, information-related costs of making market transactions, the need to monitor and control activities, and the possible misalignment of objectives of principals and agents. This kind of theorising includes the work of Coase (1937) and Williamson (1975, 1979), for example, and, as will be elaborated upon below, such theories are associated in this thesis with the large firm as opposed to the LME, which is intent on confining its information needs within strict limits. On the other hand, the second group of theories envisages the firm as a

repository of specific knowledge, including technological and organisational capabilities, which is embodied in its routines and competencies (cf. Penrose, 1959; Nelson and Winter, 1982). "It is this specific knowledge which leads not only to differences amongst firms (and hence to variety) but also to the earning of quasi-rents on the part of those firms *which possess distinctive competencies which cannot be easily emulated by would-be competitors*" (Fransman, 1999:7; my italics). This proactive depiction encapsulates the LME which is perceived here as the practitioner *par excellence* of this approach. However, the LME does this by deepening and concentrating its knowledge rather than extending and dispersing it in the fashion of Chandler's (1990) large diversifying, multiproduct corporations in pursuit of profit through economies of scope and scale and reduced transaction costs.

### **2.2.3 The LME as Accomplishment: Examples**

As will be elucidated in Chapter Four on the Japanese economic structure, the circumstances in that country have been particularly propitious for the development of leading medium-sized enterprises, and this is one good reason to single them out to instance distinctive emerging aspects of globalisation. However, other countries propagate them too. So by way of illustration, the following presents five examples, one from Japan itself, together with one each from Denmark, Germany, the United States, and Norway (3). These companies each have an analogue among the five case study firms in Chapter Seven. In addition, an 'articulation attribute' is attached to each of them, in an attempt to characterise the key element of the articulation strategy guiding the firm, while recognising that such attributes are not exclusive to them; quality, for instance, can justifiably be ascribed to all of them.

### **LME Example 1: LEGO**

Original Source: Simon (1996)  
Website: [www.lego.com](http://www.lego.com)  
Head Office: Billund, Denmark  
Established: 1932  
Employees: 8,000 (worldwide)  
Case Study Analogue: Pentel

In 1932, master carpenter and joiner, Ole Kirk Christiansen, established his business in Billund to manufacture stepladders, ironing boards and wooden toys. Two years later, with a full complement of six or seven employees, the company and product name LEGO derived from the Danish 'play well' was adopted, along with the motto 'Only the best is good enough'. By 1949, the company was producing 200 different plastic and wooden toys, including the forerunner of the LEGO bricks as known today. The first foreign venture was the setting up of a sales office in Hohenwestedt in Germany. When the wooden toy warehouse was destroyed by fire in 1960, the decision was made to discontinue wooden toys and concentrate exclusively on plastics. In 1973, a single new LEGO logo replaced the various logos of hitherto to unify all the company products under a single banner. In keeping with the times, in 1980 LEGO introduced its Educational Products Department, subsequently in 1989 renamed LEGO Dacta. Over the past 60 years worldwide sales of LEGO bricks have exceeded 320 billion. LEGO is now the only European toy maker among the world's top ten, while remaining throughout an unlisted, wholly family-owned enterprise

#### *Articulation Attribute: Open Niche*

LEGO can be categorised as 'open niche' for three main reasons. First are the simple base materials it has applied to a wide variety of toys and building block sets; initially wood, then wood and plastic, and finally plastic only, followed in 1963 by a shift from cellulose acetate, as the most important raw material, to ABS (acrylonitrile butadiene styrene), for bricks of a better colour quality. Second is the company's ready embrace of new technology when it clearly enhances the product, as with the introduction of a CD-ROM containing building instructions and the launching of a LEGO computer game, both in 1997. Third is its ability of extension of the basic concept both to products designed for older age groups and contemporary settings, and to Legoland leisure parks.

### **LME Example 2: Stihl**

Original Source: Simon (1996)

Websites: [www.stihl.de](http://www.stihl.de) + [www.stihl.co.jp](http://www.stihl.co.jp)

Head Office: Stuttgart, Germany

Established: 1926

Employees: 6,000 (worldwide)

Case Study Analogue: Shofu

In 1926, Andreas Stihl established a factory in Stuttgart to produce the world's first electric powered chain saw. This was followed in 1929 by the launching of a 2-stroke gasoline engine chain saw when the company still only employed twenty people. Other market firsts were to follow, such as its one-man chain saw in 1952 and its direct drive one-man chain saw in 1959, so that by 1971 Stihl could claim to be the world's foremost chain saw maker. Right from its founding, perhaps in recognition of the national limitations imposed by its elected core competence, Stihl was internationally minded. Already, in the 1930s, it was developing business in the United States and the Soviet Union, operations thereafter expanding over time into Europe, South America and elsewhere. Now, in addition to its seven plants in Germany, it also has factories in the United States, Brazil, China, Australia and Switzerland, complemented by a worldwide network of some 30,000 sales outlets selling Stihl products in 140 countries. The company is still family-led.

#### *Articulation Attribute: Focus*

Since 1926, Stihl has not wavered in pursuing the specialised development and manufacture of portable electric and gasoline power tools. The main products are manifestly geared to a clearly defined market, including as they do chain saws, trimmers, brushcutters, blowers, cut off machines, saw chains and guide bars, both for DIY and professional purposes.

### **LME Example 3: Molex**

Original Source: Kuhn (1985)

Website: [www.molex.com](http://www.molex.com)

Head Office: Lisle, Illinois, United States

Established: 1938

Employees: 16,241 (worldwide)

Case Study Analogue: Mabuchi

Having developed a plastic material which he called Molex, Frederick August Krehbiel founded Molex Products Company in 1938 to make from this material items such as clock cases, flower pots and valve wheels. Soon thereafter one of his sons assumed the entrepreneurial mantle having recognised the material's exceptional electrical insulating properties. Consequently, by the 1950s Molex was moving fast into the appliance market with its connector terminal blocks and became one of the pioneers in developing pin and socket connectors. By the 1980s, its connector components were being supplied to original equipment manufacturers in consumer goods (e.g. televisions and electronic games), office automation (e.g. computers and copiers), and industrial equipment (e.g. automobiles and medical instrumentation). Already, three fifths of its revenues were being generated outside the United States, having established five plants in East Asia, four in Europe, and one each in Mexico and Brazil (Kuhn, 1985:182-3). In the 1990s, it entered such growth industries as telecommunications, industrial automation and premise networks. Today, Molex describes itself as "the world's second-largest manufacturer of interconnection products and systems." Its market-place is now truly global, servicing global multinationals including the likes of Compaq of America, Sony of Japan, Nokia of Finland and Thalès (formerly Thomson) of France. Molex went public in 1972. As of now, the two joint chairmen are family while the chief operating officer and chief executive officer are not.

#### **Articulation Attribute: Quality**

Molex opened its first overseas plant in 1970 in Japan. Its quality allowed the company to establish itself in Japan at the very time when Japanese companies in the industry were beginning to manifest their full potential. Just as Japan's electronics industry was gearing up to achieve worldwide supremacy, Molex was not on the outside fighting a losing battle against seeming invincibility, but on the inside contributing to the process.

#### **LME Example 4: Fujikin**

Original Source: Nakamura (1990)

Website: [www.fujikin.co.jp](http://www.fujikin.co.jp)

Head Office: Osaka, Japan

Established: September 1954 (initially founded in May 1930)

Employees: 704 (Group total in Japan as of August 2000)

Case Study Analogue: Union Tool

The company was originally founded in 1930 as a specialist wholesaler of piping materials and machinery products under the name of Kikai Kogusho. Having made patent applications in seven countries for its long-life 'QS Valve R' in 1965, Fujikin advanced into production in 1967. But rather than merely reproducing the items it had hitherto sold, Fujikin concentrated on the production of special valves for advanced technology industries, including atomic power, marine development, high polymer chemicals, energy-saving machines and space rockets. In this way Fujikin developed into what it itself conceptualised as a maker of super-precision fluid control devices. In 1976, it advanced into the construction of clean rooms for the production of valves for space rockets which are state-of-the-art for the industry; these valves requiring an extremely high degree of purity to resist ultra-low temperatures for use in rockets. Fujikin has received numerous awards, as proof of its superior ability in its core competence, including the (then) Ministry of International Trade and Industry's commendations for high-pressure gas disaster prevention (1986) and safety (1989). With respect to overseas, markets rather than cheaper production sites have been the predominant reference, as indicated by the the establishment of a representative office in New Jersey, a sales office in California and an operating centre in Germany in the 1980s, followed by the purchase of a manufacturer of precision valves in Connecticut in 1990. Fujikin remains unlisted.

#### **Articulation Attribute: Compact Nucleus**

The fact that Fujikin was able to take advantage of Japan's Small and Medium Enterprise Agency's grants for technological improvement in 1985, 1988 and 1989 underlines the modest size of this specialist company even as it was internationalising. This has remained so since. The number of employees in Japan, for example, having been 600 at the end of the 1980s (Nakamura, 1990:46) is now just over 700 in a company which sustains itself on advanced technology for demanding customers.

### **LME Example 5: Norske Skog**

Original Source: Sather (2000)

Website: [www.norskeskog.no](http://www.norskeskog.no)

Head Office: Skogn, Norway

Established: 1962

Employees: 11,000 (worldwide)

Case Study Analogue: Tanaka Kikinzoku (TKK)

Norske Skog was established by forest owners in Skogn, Mid-Norway in 1962 as part of a forward integration strategy to secure outlets for their timber and learn about the forest products market. From the start, the chairman of the board and several of the board members have been forest owners. While the ownership-management relationship has been close, however, the two sides have not always advocated identical approaches (Sather, 2000:6-7). By 1966, Norske Skog had the biggest and most modern facility for publication paper in Europe, and remained a solid, medium-sized, essentially single-country-based firm for the next 20-odd years. But by the mid-1980s, declining profits pointed to expansion as the surest means of survival. This was a predicament common to paper mills within Norway (and, indeed, beyond), so Norske Skog's initial steps entailed consolidating its home territory by merging with one Norwegian company (Follum) and acquiring another (Saugbrugs), both in 1989. In turning to Europe, however, it resorted to alliance capitalism by setting up a greenfield mill in France with French and German interests. Through the 1990s it internationalised rapidly, buying mills in Austria and the Czech Republic, then in Thailand and South Korea. By 2000, it had attained global reach through the acquisition of a firm with mills in New Zealand, Australia, Malaysia, Brazil, Chile and Canada. Today, however, having divested pulp mills and shipping companies in 2001, it concentrates on its core business of wood-containing publication paper. It is quoted on the Oslo Stock Exchange.

#### *Articulation Attribute: Strategic Clarity*

On its website Norske Skog enunciates its strategic approach with precision. Key elements of this include a commitment to its core business as above, plus the fact that, while operating worldwide, it will base its growth on "profitable, long-term industrial development in Norway and Europe." Also highlighted are customer orientation, a competitive dividend policy, effective and long-term relationships with suppliers, and competent, motivated employees.



## **PROPOSITIONS**

### ***P1***

*The LME is a concept which derives its definition from three key elements: size, type and stage. That is to say, it has a minimum of 200 and a maximum of 1,999 employees at its home country base; it is highly specialised, having a self-defined and self-contained core competence; it is already established as a medium-sized company occupying a leading position in its selected sphere of business. These elements have a direct bearing on the distinctive way in which the LME conducts its affairs.*



## **RESEARCH QUESTIONS**

### ***RQ1***

- (a) What distinguishes the fashion in which the LME undertakes its business operations?*
- (b) How does this form of conducting business differ from that of large firms and SMEs?*
- (c) What is the underlying source of this strategic philosophy?*

## **2.3 Articulation**

### **2.3.1 Introduction**

At the start of the last decade Porter (1990) advocated a shift in theoretical attention with regard to the nation and the firms within it. This entailed four aspects. First, rather than comparative advantage, it must be explained why a nation's firms gain *competitive advantage* in all its manifestations. Second, theory should reflect the richness of the competitive environment to include segmented markets, differentiated products and diversified technologies, and economies of scale. Third, analysis should commence with the premise that competition is dynamic and evolving, rather than the static view of hitherto focusing on cost efficiency. Finally, improvement and innovation in methods and technology must be made central to the debate, bringing in the role of the nation into the innovation process. Discussion of how the nation fits into the process of globalisation is reserved for later chapters. But as far as the firm is concerned, what Porter is proposing is to recast the firm in a proactive light, focusing on how it gains competitive advantage by realigning attributes, circumstances and constraints to achieve its ends. This is the essence of the concept of *articulation*, a concept which I argue is central to understanding the strategic philosophy and evolution of LMEs.

### **2.3.2 Defining Articulation**

#### *(a) Competitive Advantage and Articulation*

Competitive advantage can be defined as “a unique position which a firm develops *vis-à-vis* its competitors” (Bamberger, 1994:134). A panoply of competitive advantages can be assembled resulting from past entrepreneurial activity which at any given point in time demonstrate a given firm's superiority to others in certain spheres. These advantages are based on distinctive competences embodied in specialist equipment, advanced technology, skilled workers, efficient information systems and other factors (Porter, 1985). They come to comprise the ownership-specific advantages (Dunning, 1979) or the tools for articulation. But no firm has been able to achieve the ultimate logic of Hymer's (1976) theory of monopoly, and the total internalisation of knowledge – if ever contemplated – is an illusion. The firm is constrained by the abilities of other

companies, the intervention of local, national and supranational organisations (e.g. regulatory bodies, trades unions, pressure groups), and its own limitations, including knowledge deficiency. Articulation entails the firm recognising the circumstances in which it finds itself and then trading off attributes against the constraints to best advantage. At the same time, to borrow the imagery favoured by Teece *et al* (1990), articulation is the manipulation of *very* 'sticky' capabilities which are far from easy to acquire or pass on. It comprises a concentrated routinisation based on knowledge *plus* a capacity for incremental adaptation (Nelson and Winter, 1982). But to distinguish this concept from similar constructs further refinement is called for.

### *(b) Representations of Articulation*

BOX 1 offers one perspective based on a military analogy. Although deprived of many of the trappings of power, the Swiss militiamen devised a format of operation which enabled them to keep company with, and for a time outmanoeuvre, much stronger and more elaborate forces. The French, being much more sophisticated and possessing the broad array of assets (to which the large TNC is accustomed, in this analogy), responded by first emulating and then internalising the attributes of the offensive heavy infantry. Finally undermined, the Swiss abruptly lost their articulating faculty, rather as if they constituted an LME with a closed niche product derived from technology which could not be redirected to other uses. To continue the metaphor, the Panzer division, although large like the French army, was contrived as a highly specialised attack unit, shorn of all extraneous impedimenta. Reduced to the essentials of tank, radio and motorisation it epitomised the bare bones of articulation: economy and proactiveness. To these must be added simplicity and imaginativeness, traits well exhibited by both the Swiss militia and the Panzer division. The units of operation applying these principles can also be small, as shown by Robic and Bamberger (1994) in their study of the French dairies with their multiple choice potential: product, market, region. Defined size, therefore, is not a prerequisite of articulation. But, as will be shown, articulation is an art much practised by LMEs as they have grown and internationalised. It is the 'strategic philosophy' underpinning their survival and success.

## **BOX 1**

### **ARTICULATION IN MILITARY THEORY AND PRACTICE: A METAPHOR AND MODEL FOR BUSINESS**

Articulation in military literature usually – although not entirely – concerns the ability of military units to *manoeuvre*. In this thesis some liberty has been taken with the term to include the means acquired to effect manoeuvre as well as the manoeuvre itself. These means, with respect to LMEs, are assumed to be restricted, hence the importance of articulation. Illustration (A), describing a type of heavy infantry devised by the Swiss in the fourteenth century, is intended to simulate the LME predicament and articulated response. Articulation is not, however, simply the remedy for modest attributes as the Panzer Division in Illustration (B) makes clear.

**Illustration (A):** In the fourteenth century the Swiss were in the main impoverished peasants, along with a small class of urban dwellers, separated by mountains into small communities, each having a militia. They fought on foot, without body armour or shields, using only a halberd, which is essentially a combined pike and axe. Rather than form into a battle line they adopted a formation similar to a series of solid squares, which allowed for the soldiers to stand shoulder-to-shoulder, keep their front in alignment, avoid gaps in the line, and level their pikes in all directions if necessary to defend flank and rear, as well as to attack frontally. Solidarity and coherence were achieved due to the fact that all soldiers in a given unit came from the same village, town or guild. They believed in taking the offensive; rather than receiving an attack they preferred to advance against the foe at surprising speed for such seemingly unwieldy formations. Inasmuch as they brought back to the European battlefield a heavy infantry capable of offensive manoeuvres and remained undefeated for decades, the Swiss had a profound effect. That the much larger French military establishment emulated them is evidence of this. So, although being very poor and lacking horses, armour and sophisticated weaponry, the Swiss were able to articulate what they had – their halberds, their unique formation, their solidarity, and their offensive strategy – into a successful engagement with a much larger world.

**Illustration (B):** The symbol of the Panzer division was the tank, there being at least 500 of these highly manoeuvrable units of destruction per division. But the real secret

behind the articulation of these divisions was their combination with two other factors: the radio (which had been incorporated into all modern military in the 1930s) and motorisation, the latter for artillery, antitank guns and supplies. By combining the tanks with the other motorised weapon systems the Panzer divisions were able to carry out traditional turning movements to enclose and neutralise the enemy. The equivalent of a strategic alliance with the airforce, made possible not least by the technological advance in the form of the radio, also contributed significantly to the successful outcome. Thus, through an original articulation, which blended new and old elements, the Germans in 1939-41 were able to break the tyranny of the battle line that had ruled since the First World War.

Source: Archer Jones (1987)

### **2.3.3 Articulation and Theory**

#### *(a) Articulation and Internationalisation Theory*

As will be discussed in more detail in the following chapter, post-equilibrium holistic internationalisation theories find their inspiration in large transnational corporations which encompass multiple activities and territories. As such they can be subsumed under the rubrics of monopoly, internalisation, control, and the eclectic paradigm. Should the said corporations play out such theoretical formulations to their logical conclusion they would achieve a kind of monopolistic stasis. By contrast, the concept of articulation represents a dynamic interacting with circumstances concerning which there is no perceivable finite conclusion even in the broadest theoretical terms. On the other hand, coherent predetermination of objective and course is the foundation of articulation effectiveness. Firms with clearly defined products and markets are, in a sense, ideal candidates for longitudinal/gradualist theory because they can articulate their well honed specialisation into an international presence. The four Swedish firms described by Johanson and Wiedersheim-Paul (1975) are just such cases. Because of the firm's strong self-definition, moreover, the stimuli motivating internationalisation are likely to be more endogenous than exogenous in origin. Constraints and limitations, on the other hand, comprise part of the essential fabric of articulation, functioning as they do to cast the outline of the feasible, while articulation itself is at the kernel of strategy. Knowledge and the decision-making emanating from it are intensively consolidated

while being consciously circumscribed. Offering a backdrop to this conceptualising is contingency theory, which is based on the assumption that “strategy performance relationships can vary across different environments” (Siu and Kirby, 1998:53). That is, the company has to contend with environmental influences such as the structure of the industry, market growth rates, the extant technology, the characteristics of demand, and the attributes of the macro economy. To this it brings to bear its particular know-how, equipment, human and financial resources and management capabilities. The articulation concept is in agreement with the overall gist of this contingency theory approach. However, it is a concept, not a theory. And articulation itself entails focusing intensively on the *key* innovating forces, adding to its power of insight.

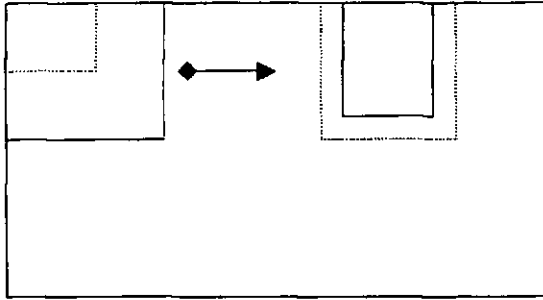
*(b) Articulation, Adaptation and Flexibility*

Adaptation and flexibility are two other concepts of adjustment which can fruitfully be contrasted with articulation. Barnard (1938) noted that the main preoccupation of an organisation is that of *adaptation* to changing circumstances, and that such adjustments could not be made in discrete piecemeal fashion but had to be effected through a strategic balance of the various aspects of the organisation's activities. Williamson (1975) applied this to transaction cost economics, asserting that administrative hierarchies, as epitomised by the large enterprise, are the most efficient way of reducing information costs. Hence, adaptation to change can be most easily associated with large and growing bureaucracies. It can also be inferred that the process is *internal* with adjustment being achieved by the realignment of competencies *within* the organisation. An example is the shift of personnel within the Hitachi group starting in the late 1970s from its declining shipbuilding sector to its burgeoning electronics sector. Conversely, *flexibility* is often linked with the actions of smaller firms, implying their ability to switch rapidly and perhaps opportunistically into different areas of business. Where articulation differs from these is that it communicates the idea that the firm manoeuvres partially or wholly as an *embodied core competence*. It does not create or extend to other competences within itself (adaptation), neither does it randomly lock onto other competences outside itself (flexibility). This is best seen as the functioning (incremental improvement) of the ‘chamber’ of core competence ascribed to the LME above.

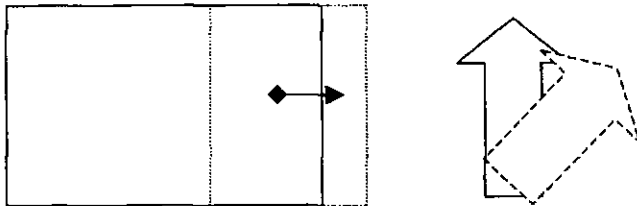
In this scenario, therefore, there is a simple chain of associations, thus: adaptation for large firms, articulation for LMEs, and flexibility for small firms. There is considerable justification for this; organisations of different size tend to act by different criteria (Pugh, 1988). However, some qualification is in order here or else the full implications of these concepts would not be brought across. Structural conditioning rather than size can define behaviour (Bergqvist, 2002), as illustrated by Hewlett-Packard's establishment of semi-autonomous business units for all its core products (Saxenian, 1994). Here, both this large company as a whole and the individual units are practising an articulation strategy. Yokogawa Electric, the world's second largest maker of industrial instruments after Honeywell, has recently announced its intention to close fifteen plants in Japan and move their operations to China and other East Asian countries (Nikkei, October 12, 2002). This again is articulation because it entails the simple partial relocation of the *same* core competence. Alternatively, articulation by smaller firms these days is evident in their wholesale introduction of the Internet to increase sales, reduce costs and augment profits because it involves readjustment of their existing business as a complete entity. As for flexibility, the common reference for large firms is their use of subcontracting to keep their employment options open (Atkinson, 1984; Blau, 1993), and it has already been suggested in this thesis that LMEs can be very flexible *within* their core competence. Small firms can likewise be flexible within their existing operations. Palaez-Ibarrondo and Ruiz-Mercader (2001) illustrate this by showing how an SME making various metallic parts for lamps and bathroom fittings can achieve optimal results through operational flexibility. But this example also underlines a distinction. The SME technology used here is relatively simple and extra flexibility is at hand by merely bringing in more numerical control equipment (Palaez-Ibarrondo and Ruiz-Mercader, 2001:10). However, as will be seen in the next chapter, in Nakamura's (1990) view, one of the cardinal factors distinguishing LMEs (*chuken kigyō*) from SMEs (*chusho kigyō*) is their much greater dedication of time, learning, personnel and equipment to their chosen core competence. The 'chamber' thus created effectively constitutes a framework functioning as an entry barrier. Moreover, at one and the same time, the elevated expertise closely defines action and opportunity, while the in-depth commitment *constrains* manoeuvre. The concept of articulation is an attempt to visualise the field of tension experienced between the sustained commitment to a specialised area of endeavour and the constant need to address a changing environment.

**Fig. 2.1 Images of Adaptation, Articulation and Flexibility**

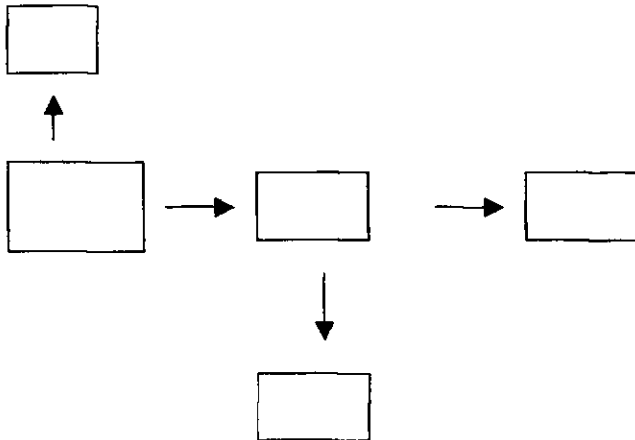
**Adaptation:** *shift of resources to new area of (internally developed) competence*



**Articulation:** *incremental improvement of core competences*



**Flexibility:** *active pursuit of diverse opportunities as they present themselves*





### 2.3.4 Articulation as Practised by LMEs

#### *(a) Key Elements of LME Articulation*

It was explained at the beginning of this chapter that the term *leading* medium-sized enterprise embodies a value judgement and is as such an idealisation. Nevertheless, it is also a descriptive term which can justifiably be employed to give perspective to a certain genre of company. But in either case, being *leading* as well as *medium-sized* – which hints at its limited scope – this kind of enterprise can be expected to exhibit aggressive articulation tendencies. Earlier the LME has been characterised as independent, professional in its undertakings, and highly committed to its core competence. The leadership and management are compact, quality spearheads policy, and strategy is broadly defined yet circumscribed (the chamber), while open to great flexibility in detail (mechanisms). Attributes stand out, as with the five, international examples given above, these being open niche (LEGO), focus (Stihl), quality (Molex), compact nucleus (Fujikin), and strategic clarity (Norske Skog). Added to this is the ‘*first decision*’ as to what the core competence should be. This may have been, but does not have to have been, made simultaneously with the founding or establishment of the company, but it is the crucial decision which has shaped the company and its articulation ever since. This articulation feeds an attitude which is projected out to the world beyond. In this way, the ‘first decision’ is the direct ascendant of internationalisation.

#### *(b) The Five International Examples and the ‘First Decision’*

Stihl was established for the express purpose of making chain saws and Norske Skog likewise for paper manufacturing. So their ‘first decision’ coincided with their commencement. Stihl, according to its website, was also conscious from the start of the worldwide market outside Germany, and in targeting the United States and the Soviet Union almost from the beginning it showed that this ‘first decision’ had overseas implications. Norske Skog commenced with no such pretensions and only internationalised when survival was at stake. Then it was able, in the first instance, to leverage its resource-based advantage to benefit from market demand in the immediate vicinity of Norway before going international by stages. The ‘first decision’ for LEGO

and Molex was, as it were, a reflex reaction within two or three years of establishment. They both quickly and decisively determined where their competitive advantages lay and articulated their success from that point. Again, one of them, LEGO, in choosing Germany favoured proximity as the conduit to internationalisation, while Molex – when it came to investing abroad – placed the emphasis on the product and the need to be close to the market. Fujikin's 'first decision' only came when it switched from being a wholesaler to being a manufacturer of specialist valves, some thirty-five years after the establishment of the original company. Like Molex, product and market have been paramount in its internationalisation strategy.

## **PROPOSITIONS**

### ***P2***

*Articulation characterises a strategic approach entailing the exercise of bounded options within a field of sustained mobility. It captures well the strategic philosophy of the typical LME, while not being exclusive to it. Articulation is a gradualist, incremental approach which entails movement of the firm as a unit of embodied core competence. It can be contrasted with the creation of new competences within the business entity (adaptation) and the attachment to competences outside (flexibility). Articulation and the core competence comprise a symbiosis, the source for both being the 'first decision'.*



## **RESEARCH QUESTIONS**

### ***RQ2***

- (a) Does the LME, thus defined and functioning as indicated, have a particular role to play in the globalising world economy?*
- (b) Can the LME be placed in the body of theory to explicate a particular form of internationalisation/globalisation?*
- (c) As a business and internationalising entity, how does the LME differ from large TNCs and SMEs?*

## 2.4 Aims and Methodology

### 2.4.1 Research Aims

The primary aim of this thesis is to show *how the firm designated as an LME as outlined above has progressed along the path of internationalisation*. Complementing this is the aim to show how the LME, with the character that it has and the fashion in which it operates and internationalises, is able to contribute to the understanding of the globalisation phenomenon. A secondary aim of the thesis is to make observations regarding the part Japanese LMEs have played in the economic integration and industrial upgrading within their 'local' region. For this it is intended to pursue the chain of evidence laid out in Chapter One and embellished by a series of propositions and research questions, two sets of which have been presented in this chapter, to be followed by four more sets over the next three chapters.

More specifically, the premise taken in this thesis is that the theory of business internationalisation and, within that, the theory of foreign direct investment (FDI), have been overly concentrated on the very large or very small company, while not enough attention has been directed at medium-sized firms, which non-theoretical work nevertheless suggests have played a significant role in both exporting and foreign investment. One of the economies with a strong representation of medium-sized enterprises in the manufacturing sector is Japan. With the exception of Nakamura (1962, 1990) and a few others, however, medium-sized Japanese companies have been given short shrift as far as theoretical placement is concerned, although here again there is a large popular and marketing literature which champions their attributes. Not all medium-sized companies are under consideration here, but only those which have clearly manifested an effective business discipline and strategy (Rommel *et al*, 1995; Porter *et al*, 2000), are capable of competing on their merits with all comers (Kuhn, 1985), and have honed specialist markets on a regional if not on a worldwide scale (Simon, 1996). These are designated as LMEs. The basic aim of this thesis is to investigate to what extent and how LMEs have initiated and sustained, through articulation, a program of internationalisation starting any time within the period from the 1960s to 1990. Regarding this process, particular reference is made to the roles of the nation and the multinational region as context and active influences on the LME internationalisation process and as locations in turn shaped by the evolving LMEs. The

nation here is represented by Japan and Taiwan as they interact and evolve within the region of East Asia. The significance of this region, and of Taiwan within it, are highlighted both to investigate the relevance of proximity, that is their potential to function as a springboard for the LME in its course of internationalisation, and to serve as evidence of how their interaction with the LME is conducive to the process of globalisation. The outline of the argument is presented in the following table.

**Fig. 2.2 Outline of Argument based on Propositions**

1	Type of firm and object of study	→ LME: a distinctive business type	→ Japan as source/seedbed of LMEs
2	Strategic philosophy driving evolution of LME	→ Articulation: incremental improvement within defined sphere	→ Articulation as basis for functioning of the LME
3	Mode of internationalisation of LME	→ Sequential FDI: proximity to global presence; management of international production networks	→ Taiwan as point of entry for internationalising LMEs
4	Contribution of LME to globalisation process	→ Intensification of regional level integration/embeddedness/role of Japan and Taiwan	→ East Asia as multinational region influenced by LME evolution (co-evolution of firm and region)

#### **2.4.2 Research Methodology and Design**

The research methodology applied here comprises three main elements: theory, narrative analysis and empirical analysis. The theoretical element, which is the subject of the next chapter, entails placing the LME within the setting of internationalisation and globalisation theory as it has evolved. It is essentially a selective review of the theoretical literature, interjecting comments throughout concerning its pertinence regarding the LME, with the intention of illustrating the viability of the LME as a concept for elucidating aspects of the increasingly multidimensional nature of globalisation. Chapter Four presents the first of the background narratives, this concerning the recent development of Japan's industrial structure to demonstrate the LME as fact and to suggest how and why it happened to flourish in that particular country's economic environment. This is followed in Chapter Five by accounts of East

Asia as the general immediate regional environment pertaining to Japanese LMEs, and then of Taiwan as the prime example of 'super proximity' for these LMEs within that region. This is with the idea of painting in the scenario geographically adjacent to Japan from which its LMEs have benefited and to which they have contributed as they internationalise in a globalising environment. The approach in both these chapters can be termed historical, based largely on secondary Japanese, Chinese, English and French language sources, though with some original data interpreted from official Japanese and Taiwanese sources. These sources are identified in the text and evaluated in methodological notes at the start of each chapter. The analytical section takes up the subsequent two chapters, the first presenting a quantitative firm-level examination of the estimated population, of 110 Japanese LMEs which have invested in Taiwan, based on secondary Japanese and Taiwanese (Chinese-language) official, commercial and corporate sources. The second is a qualitative analysis by way of five LMEs extracted from the original 110 as case studies, combining primary data through interviews in Japanese and English conducted in Taiwan and Japan, together with newspaper and journal reports, company histories, catalogues and websites.

#### *(a) Reasoning for Methodology Adopted*

Put simply, this study employs a number of language sources – English, Japanese and Chinese – to set the scene, review secondary data of a fairly large sample, and then concentrate on a small number of case studies. This was essentially the format adopted from the beginning for reasons that will become apparent. Other approaches could have been taken; it could have been possible to stick to English, conduct an ethnographic study, or regard all of the 110 sample companies as case studies, for example. To take the matter of language, it would now be possible to investigate large Japanese companies purely in English because of the materials they produce themselves in that language and general data available in publications and the media. But, this is not possible for smaller Japanese firms, including LMEs, although it is worth pointing out that the LME as defined above is the smallest sized company for which a substantial body of data in Japanese is readily available.

This study started with the examination of Japanese and Chinese sources, these being relatively detailed materials produced in Taiwan about Japanese companies which had

invested there. An alternative could have been to start with the brief English-language accounts of companies on the Japanese stock exchanges to work out which of them could be classified as LMEs. However, a fifth of the 110 LMEs – including two very good case studies – are not listed. Besides, the only publication which tells you if they have invested in Taiwan while also presenting a comprehensive picture of their investments worldwide is in Japanese. There again, there is the list of members of the Japanese Chamber of Commerce in Taipei in English, but these are predominantly large firms and only eighteen of my sample turn up there. Most these LMEs now have websites, but some are only in Japanese, and very few of them have home pages emanating from their Taiwan affiliates in any language revealing anything of much substance. In addition to English, then, Japanese and Chinese sources are essential for a study like this, not only to work through the detailed data but also to get profounder understanding of the circumstances. The very core of the subject matter, the book written by Nakamura (1990), is only in Japanese; in contrast to large firms, literature on smaller Japanese firms is almost exclusively in Japanese; there is a growing body of literature by Japanese economic historians about Taiwan and other Asian countries; likewise, Chinese-language literature written by Taiwanese scholars about the Japanese corporate presence in Taiwan is on the increase.

As for the ethnographic approach, my main base for this study has been Taipei. The likelihood of a manager of a Japanese affiliate agreeing to having a field worker on site is remote, and the Japanese headquarters sanctioning it even more so. Added to which, there is the problem of too close an association with the subject compromising the conclusions, especially if limited to a single company. As has already been illustrated with the five international examples presented earlier in this chapter, moreover, LMEs are present in a whole range of businesses, so that it is desirable to come up with a cross-section of business activity to incorporate different kinds of LME. Other reasons are related to the continuation of this discussion immediately below, but another factor was that I had in the past already had ten years experience of working in and with smaller Japanese companies, so that I felt that with the impressions thereby absorbed I could stand back and observe from the middle distance so to speak.

So, given this language knowledge and personal experience, for the empirical analysis the research design emerged as follows. The main question at issue was how to obtain

the sharpest and deepest insights into the internationalising Japanese LME. I was able to obtain considerable written data, including surveys, in Japanese and Chinese for a basic population of 110 Japanese LMEs as described in Chapter Six. Having determined my basic sample I could have approached all of them in an attempt to achieve survey results of my own. I did not. Instead, I continued to amplify the picture of each company from further written sources to eventually produce substantial summaries of all 110 companies as in Box 5 in Chapter Six and Boxes 7 – 11 in Chapter Seven. The reason for not relying on early direct contact with these firms was I reasoned that the response would have been poor. This is justified by the fact that, as will be seen, when I finally did make contact very few firms replied favourably, and follow-up telephone calls to thirty of them yielded nothing extra. I could have sent out a questionnaire of a simpler variety than I eventually did, but, even if responded to by a good percentage of the firms, it would not have added much in terms of information – particular and aggregate – that I already had. I could have gone through prominent Japanese Taiwan-based institutions which had already provided me with general data, such as the branches of the Japan External Trade Organization and Nomura Research Institute. Again, my instinctive doubts proved correct, because when I finally asked them if they could put me in touch with any of the 110 firms, I drew a complete blank. Finally, one of the requisites for this study was to attain an understanding from the standpoints of both the Taiwan affiliates *and* the headquarters in Japan. To have pursued this to the depth required for a large sample would have been very costly and time-consuming. Making case studies out of all the sample firms was from the start not a viable proposition and nothing that happened subsequently gainsaid that. The profiles constructed of the 110 firms provide considerable insight, and also constitute the basis for more detailed case studies of selected firms.

The approach to the case studies started by compiling as much information as possible about the firms before making contact, and then doing so with a questionnaire of considerable detail which would only attract companies seriously interested in cooperating (see Appendix). The result was four responses (the fifth case study was through a personal contact) from firms which proved to be excellent examples of what I wanted to describe, as well as being as a group (with the fifth one added) an interesting cross-section of LME business activity. The three-dimensional definition of the LME also influenced this choice of research strategy. As we have seen, apart from being

simply abstracted from a numerical continuum, the LME is a particular type of firm which may be at a specific stage of development. It is as such a dynamic concept which cannot be merely projected in statistical terms; it must be brought to life. For this it must have a profile and a name, preferably the actual name of an actual firm whose existence and activities are there for confirmation by other observers. As one in a survey of 110 companies, it would forfeit the relief that has been crafted by this definition. It is necessary to delve into what type and stage mean, and for this is needed an in-depth idea of what particular companies are like and what they have done. At the same time, having been abstracted from the larger sample for minute inspection, it can then be returned to the fold of generalisation. Hence, with this selection of five case studies both cross-sectional range and individual particularities are obtained to substantiate and embellish the previously conducted survey investigation. In this way, the combining of quantitative and qualitative culminating with case studies has comprised the empirical analysis.

#### *(b) Quantitative and Qualitative*

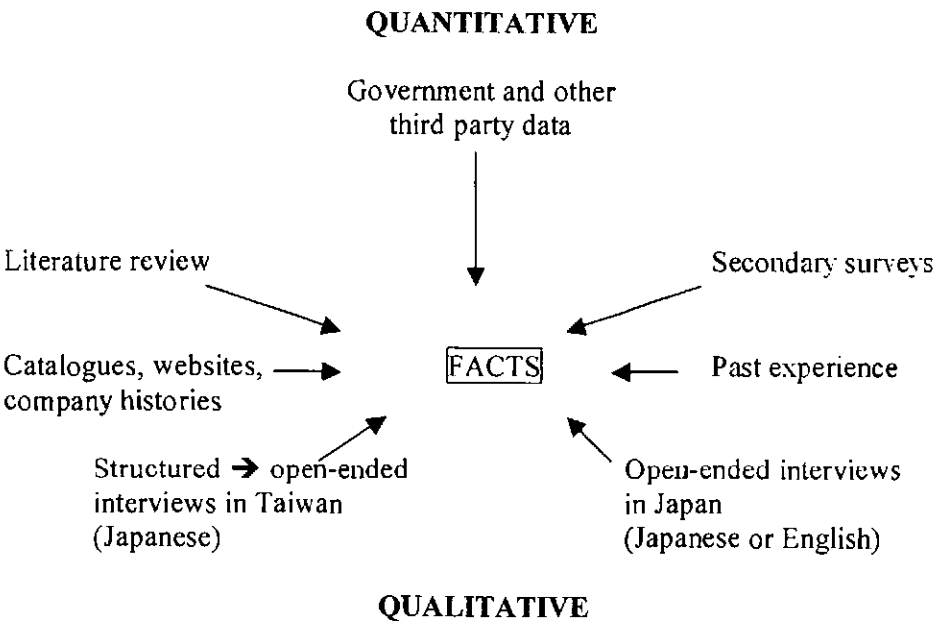
The quantitative data thus constitutes the base from which the subjects for qualitative analysis are selected. That is to say, this is a multimethod strategy founded on the premise that there is no single method applicable for such a study and that different kinds of complementary data can be acquired by using different research techniques for mutual supplementation and verification (Glaser and Strauss, 1967; Gill and Johnson, 1977). This amounts to an exercise in methodological triangulation comprising “the combination of methodologies in the study of the same phenomenon” (Denzin, 1970:297). Such a strategy implies combining principle research methods, such as historical research, statistical data and case studies. It spans the micro-macro divide in order to achieve a stronger substantiation of the propositions made (Eisenhardt, 1989).

In support of the multimethod strategy Glaser and Strauss (1967:68) have argued that “theory generated from just one kind of data never fits, or works as well, as theory generated from diverse slices of data on the same category.” To overly stress the superiority of, say, the quantitative research stance at the expense of the qualitative, or *vice versa*, is to deprive the research of the common benefit that is derived from the elements of both. The different methods have inherent strengths and weaknesses that



need to be given their due consideration (Gill and Johnson, 1991). Advocates of this position of triangulation, other than those already mentioned, include Smith (1989), Snow and Thomas (1994), and Yin (1994). It is seen as a means by which personal bias stemming from single methodologies can be curbed (Denzin, 1978). Moreover, methodological triangulation is a frequently cited rationale for combining qualitative and quantitative methods in a study (Seale, 1999). These methods are perceived as different ways of investigating the same subject matter which when combined can enhance the conclusions drawn through mutual confirmation. This is referred to as methodological triangulation and is given visual rendition in Fig. 2.3. As we have indicated, bodies of data are readily available concerning the sample companies and their overseas activities. Consequently, these have been edited and compiled to render an overall picture regarding the internationalising LME. The various bodies of data (sources and methods of analysis) used in each stage of this research are discussed and critically evaluated in the relevant chapters in the text.

**Fig. 2.3 Combining Quantitative and Qualitative Approaches: Triangulation**



### *(c) Case Studies*

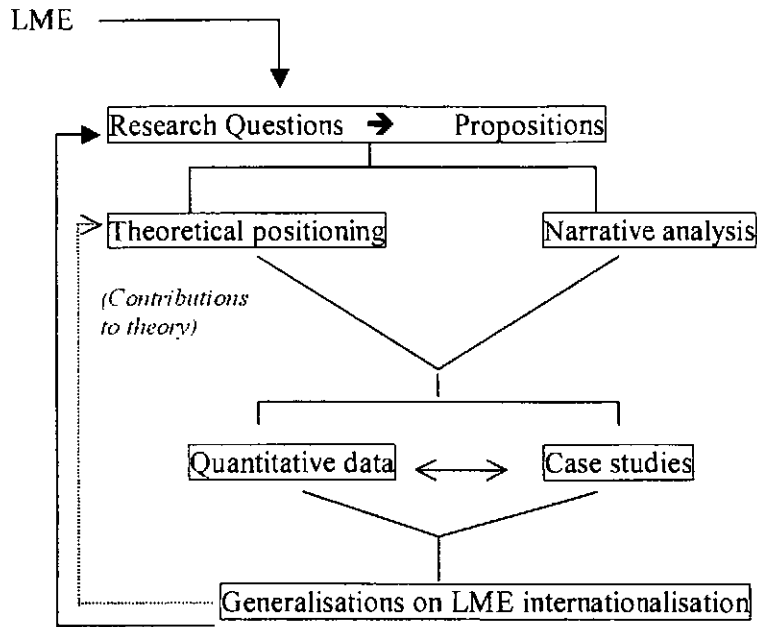
Among the ways in which Bryman (1988) saw this combination working were, first, the fact that quantitative research can lay the groundwork for subsequent qualitative examination. Second, the combination of the two can be instrumental in producing a general picture, inasmuch as, for example, the formulation of certain patterns may be unobtainable through the quantitative method alone. The decision may therefore be taken to augment the study through qualitative investigation in order to access the finer complexities of the situation. "Indeed, one of the ways in which quantitative research may facilitate qualitative research is in the judicious selection of cases for further study" (Bryman, 1988:136). The *case study* can be envisaged as completing the triangulation through an inductive process by which explanation is further embellished (de Vaus, 1996; Schofield, 1993), while at the same time eschewing any undue emphasis on scientific rigour in order to afford leeway for the elucidation of processes, emerging structures and institutions (Glaser and Strauss, 1967; Mintzberg, 1979).

Case studies can be multiple, whereby a set of experiments replicating the same phenomenon is conducted under different conditions, for instance (Yin, 1994). The likelihood of achieving such replication with business case studies is small if not impossible, however. Replication such as it goes is best derived from the quantitative side. The other extreme is to concentrate on one example only for an intensely in-depth analysis rendering insights that "will be both more accurate and more appropriately tentative because the researcher must take into account the intricacies and qualifications of a particular context" (Gibb Dyer and Wilkins, 1991:615). As stated above, there were a number of practical reasons for rejecting the multiple approach. On top of that, in my view employing such large numbers for a study of this nature would have been counter-productive and shallow. To my mind, a case study in general, and particularly in a study like this is for elucidating real-life situations in all their complexities; it is getting at the details of firms with different products, different individuals, different styles of operation and different sequences of results, but with underlying discernable similarities. So we need a few case studies to encompass the variations, but not a large number which would obfuscate the detail. The LME is therefore an institutional construct with variations, a fact which is reflected in the selection of a small number of cases (5), chosen to capture some of this variation, as advocated by Eisenhardt (1989).

#### *(d) Research Design*

The research design is the plan and structure of investigation to get answers to research questions while controlling the variance (Kerlinger, 1986), that is, it is “the logic that links the data to be collected (and the conclusions to be drawn) to the initial questions of the study” (Yin, 1994:18). Two functions of the research design as determined by Nachmias and Nachmias (1992) are of interest here. The first is that it guides the researcher in the collecting, analyzing, and interpreting of observations. Second, it defines the domain of generalisability. The crucial components of the research design for this thesis are the unit of analysis, research questions, and the propositions. The unit of analysis is the LME, which, although previously not employed in the study of business internationalisation, is nevertheless clearly defined and easily recognisable. The research questions are centered on why and how LMEs have engaged in internationalisation through FDI, and the regional consequences of this. The main proposition is that LMEs have the potential to internationalise within a globalising environment, as demonstrated by Japanese LMEs, which, through their investments in Taiwan and other East Asian countries, played a key role in the co-evolution of the Japanese and Taiwanese economies and in the development of the the East Asian region. Stemming from this is the further proposition that the term LME (*chuken kigyo*) and the particular way in which Japanese LMEs conduct their international operations are globally generalisable. The structure for the research design thus derived is as shown in Fig. 2.4. The LME is presented as the unit of analysis, and this initiates a series of research questions from which tentative propositions are drawn. The cumulative effect of these questions and propositions is then matched against mutually complementary quantitative data and case studies.

**Fig. 2.4 Structure of Research Design**



*(e) Methodology Serving Aims*

To briefly summarise the methodological sequence as it serves the purpose of achieving the aims, the first step, in the following chapter, is to posit the LME in a theoretical framework, the better to justify its utilisation as a representative concept in the theory of globalisation. This is done by a literary review punctuated by references to the LME's relevance. The next move is to show that the LME is an organic entity within an actual economic and social space by relating the historical and structural realities through which it has evolved. The literary review is again employed to show how the LME developed in Japan, especially after the Second World War. Finally in this narrative phase, to support the contention that the multinational region is an indispensable partner in the globalisation process, the pertinence of the region in general geographical, economic and cultural terms and in particular terms relating to the Japanese LME is outlined. The nature and relevance of proximity in all its implications – including technological and historical – is then given further emphasis with an analysis of Taiwan as the epitome of 'super proximity'. By this stage much more use is being made of official government materials, both Japanese and Taiwanese, in an attempt to balance the biases in the academic literature (while recognising that government data can be

biased too). Having reached this juncture the setting with all its component parts – LME, articulation, nation-state (home and host), multinational region and proximity – have been identified and fleshed out in preparation for the two-stage empirical analysis which follows.

The first of these is the quantitative analysis of the population of 110 manufacturing LMEs. In the first instance, this set of sample LMEs was extracted from a Japanese-language compilation of information published in Taiwan covering about a thousand affiliates of Japanese firms of all kinds which had invested in Taiwan (also incorporating some information in Chinese). Determining whether the parent company headquartered in Japan could pass as an LME was done by matching the account published in Taiwan against information published in Japanese and English in Japan concerning stock-market listed and unlisted companies. That having been done, further information was sought concerning their activities, including overseas, to produce corporate profiles for all 110 LMEs, an example of which is given in Box 5 (Chapter Six). The information in these profiles then serves to provide the aggregate data regarding the population. The information thereby derived is subsequently compared, first, with a survey of various types and sizes of investing Japanese manufacturing investors in Taiwan to find out where the similarities and differences lie. Second, a comparison is made with a large Japanese TNC, Matsushita Electric Industrial (MEI), with respect to activities in Taiwan and worldwide to help to put the LME in perspective in the local, regional and global contexts. This contextual representation is further nuanced at the end of the chapter with a temporal element by way of a set of five vignettes of LMEs, each of which made their initial investment in Taiwan at different times during the period from the 1960s to 1990. This is set against the backdrop of Taiwan's economic development and its evolving reciprocal relationship with Japan to see if further insights can be discerned concerning the LME internationalisation process. It also serves to link the general with the particular, thereby setting the stage for the case studies which follow.

Like the vignettes, the case studies were abstracted from the original 110 LMEs. They are intended to supply the specific detail which the aggregate survey is not in a position to provide because we now enter the real-life context of the actual firm with all its idiosyncratic intricacies. The approaches to potential case studies (except for the test

case) were made after data about them had been collected and compiled. In the first instance, 35 of them which happened also to have affiliates in the United Kingdom were contacted on the grounds that it would seem logical to them that a British citizen researching through a British university would do this. In fact, this could have had an effect because of the four Taiwan affiliates which responded to the subsequent letter and questionnaire sent in English and Japanese, three belonged to firms that responded from the U.K. The questionnaire was deliberately detailed to convey knowledge and seriousness, and also because I had often translated in the past questionnaires of a similar style and depth for Japanese research missions going abroad. The letter and questionnaire were sent to Taiwan affiliates with Japanese, rather than Taiwanese, managers because it was the Japanese perspective that was being sought. Likewise, for the three interviews which took place in Taiwan I requested that they would be held in Japanese because I thought I might get more insights that way. At my request also, these three Taiwan affiliates arranged for me to interview staff in Japan so that I could alloy viewpoints from two angles as far as they were concerned. The interviews were then combined with the profile information, catalogues, websites, newspaper and journal articles, and corporate histories to produce the case study analyses. Each analysis comprises sections on company and product, the LME character of the firm, its internationalisation process, and the role of Taiwan in its strategy. Finally, each case study LME is ascribed an 'articulation attribute', which is a key word intended to aptly encapsulate the essence of that firm's approach in general and consequently with respect to its approach to internationalisation. These articulation attributes – publicity, positioning, linkage, ultra-focus, density – are then employed as a conduit for assessing the general conclusions that can be drawn about the process of internationalisation of LMEs by combining quantitative and qualitative analyses.

## 2.5 Summary

The three concepts governing this thesis are the LME, articulation and globalisation, the first two of which have been discussed in this chapter.

*Concept 1: The LME* as a term is a free translation of the Japanese *chuken kigyō* and this type of firm is characterised by its independence, its professional organisation, and its devotion to a core competence, while it is well-practised in the art of articulation. It is particularly characterised as a firm by its capacity for building and deepening its specialist knowledge base. The LME concept is based not only on size but also type and stage. It is distinguished from the large firm by its medium size and the fact that it is highly concentrated on a closely defined sphere of business (type). Its distinction as against the SME is that it is already an *established* medium-sized company (stage), specialised in an area of business which is considerably more significant in scope than a narrow niche left over by large companies for small companies to take advantage of, and it is in a *leading* position in this selected area of business. The strategic philosophy of articulation is more pronounced among LMEs than large corporations and SMEs, based on the depth of its commitment to its strictly delineated core competence. Examples are presented to show that LMEs are found around the world and that they function at various stages of the upstream-downstream continuum.

*Concept 2: Articulation* has been presented as a means of practice and strategy for growth particularly suited to describing the nature of the LME (although not exclusive to it), in that it is a concept that is predicated on the tension between capabilities and constraints that the LME is ever conscious of contending with. Articulation is contrasted with (internal) adaptation and (external) flexibility to demonstrate how it complements the LME's attention to its core competence.

The aim of this research is to discern how the LME employs its articulation attributes to internationalise in an increasingly globalising environment. This is to be pursued by first placing the LME in theoretical context. This is followed by narrative analysis which reconstructs the national and regional environments – including within that the particular country of Taiwan – in which Japanese LMEs find themselves and then applying quantitative and qualitative analytical methods to elucidate their situation in a

progressively specific manner, culminating in five case studies. By combining the quantitative and qualitative approaches it is intended to create a clearer depiction of how the LME acts on the stage of globalisation.

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### Notes

(1) *Chuken kigyo* directly translated is 'medium[-sized] strong enterprise'. However, the usage of the Japanese term leaves one in no doubt that such firms are leaders in their chosen fields, which is why Whittaker (1997; personal correspondence) asked me if he could adopt the term LME. Before that he had been using the term 'core enterprise'. This obviously ran the danger of depicting *chuken kigyo* as firms central to hierarchical setups such as *keiretsu*, which would have been precisely the obverse of the image of independence he wished to get across concerning the LME.

(2) Nakamura, for example, gives the domestic employee figures for the time he was writing in the late 1980s, and where he is citing the same companies as I have over a decade later, these figures differ very little. In most cases employment expansion has come with internationalisation and if the international figures are included this makes some of the companies considerably larger than the range specified here. However, in all cases – and this is considered essential – they have retained much of their LME character, especially regarding their sustained commitment to their core competences, and often with respect to ownership and leadership. More to the point, they *were* LMEs at the time they initiated internationalisation. Given the fact that LME is a *dynamic* concept, citing the now larger firms to illustrate how such firms have internationalised is perfectly consistent with such a concept. At the same time, using the 1999 domestic employee figures also reins them in, setting LMEs apart from the likes of Sony, Matsushita, Canon, Honda and Kyocera, which also could be said to have gone through brief LME stages and were run by their founders for decades, but which are now very large both domestically and worldwide.

(3) These firms were regarded as being of the 'LME' type at the times the cited authors were writing about them.



## Chapter Three

### Globalisation and the LME

#### 3.1 Introduction

All five companies comprising the international group of LMEs in Chapter Two have in common – as indeed do all the LMEs referred to in this study – the fact that they have *internationalised* through the 1980s in an increasingly *globalising environment*. The neologism globalisation, coined to underscore the intensification and multifaceted nature of modern internationalisation, gained currency in the 1980s, just as these companies were consolidating their international pedigree and looking to broaden their horizons still further *en route* to accommodating globalisation. They themselves were both propagators contributing to the process and recipients responding to the evolution which described the course of internationalisation as it elaborated into globalisation. Tracing the path followed by internationalisation constitutes, therefore, the prerequisite for comprehending the position of the internationalising LME in the globalising setting and the LME's contribution to globalisation. To this end, this chapter commences with a brief historical account of the internationalisation process on its way to globalisation. Then comes a selective summary of the interpretive theory which has followed in the wake of events, covering trade theory, internationalisation theory and globalisation theory. The argument is that as this progression unfolds both in fact and as interpreted by theory it becomes increasingly complex. The actors are more diverse and more intricately interconnected, leading to the need for more varied and sophisticated tools to interpret globalisation. The chapter culminates with the proposition that the LME is just such an analytical tool, leaving to the next chapter the task of elucidating its emergence as a reality.

#### 3.2 Methodology Note

The terms LME and articulation in the fashion that they are applied in this thesis are new concepts. They are combined with the established, albeit multifarious, concept of globalisation to endeavour to shed light onto both how LMEs internationalise in a globalising environment through the application of articulation, and how in doing this

the LME serves to illustrate an aspect of globalisation in action. The tack adopted here has been to blend the LME and articulation with the actors and constructs that have been identified over time as internationalisation theory has progressed – the nation, the hierarchical firm, the eclectic paradigm, strategic alliances, networking and so on, and thereby to show how the LME locks into globalisation theory in its modern setting.

### **3.3 From Internationalisation to Globalisation: The Background**

Internationalisation as it is understood today surfaced as a reality only when knowledge and perception of the world as an entity had been achieved at the beginning of the nineteenth century, a circumstance which “transformed the world from a multitude of autarchic and culturally self-sufficient groups into something approaching an economic unit and a single strategic conception” (Ashworth, 1962:3). The fundamental underpinning of this internationalisation was technological change, accompanied by the transformation of economic organisation. In assuming its modern guise, a further impetus was given to post-war internationalisation through the inauguration of institutions claiming a global competence outside the Communist arena: the General Agreement on Tariffs and Trade (GATT), the International Monetary Fund (IMF) and the World Bank.

If technology and international institutions have contrived the enabling and mobilising environment in the post-war era, the chief actors have been nations and firms. Early on, the former were prone to adopt the fortress mentality of the inviolate nation-state. But, in general, over time nations have sought an accommodation with the changing circumstances (Sassen, 1996; Weiss, 1998), opening up to trade, deregulating and privatising, and becoming more amenable to FDI (UNCTAD, 1996b). As for firms, their most overt manifestation in the internationalising world has been the multinational corporation (MNC), or what is now more often referred to as the transnational corporation (TNC), owing its apparition to the increasing sophistication of transportation and communications systems, developments in production leading to the fragmentation, standardisation and deskilling of specific tasks, and access to a reservoir of labour worldwide.

The mounting complexity of nation-firm relationships, in fact, serves to epitomise the integrative forces at work as internationalisation metamorphoses into globalisation.

Ostensibly, as the world economy has opened up in what appears to be an unremitting surge of “technological innovation, deregulation, and trade liberalisation” (Bryan, Lyons and Rosenthal, 1998:6), it is the firm – and especially the large firm – which would appear at first sight to be gaining the most ground. Industries which are essentially the preserve of these extensive corporations, notably electronics (Ernst, 1994), automobiles (Doner, 1994) and semiconductors (Scott and Angel, 1988), as early as the 1970s spearheaded a move toward a mode of operations in sourcing, manufacturing and marketing which was global and borderless. Compounding this representation has been foreign direct investment (FDI), a clear barometer of the integrating thrust of globalisation. That is to say, FDI marked time with the emergence of globalisation in the 1980s as its measured flows grew three times faster than trade flows and nearly four times faster than output (Wade, 1996). The fact that this FDI has, since the 1980s, been very disproportionately skewed regarding both source and destination towards OECD countries, and within that the Triad of the U.S.A., the EU and Japan (Clegg, 1996:44; UNCTAD, 1999a:15), seems to endorse the impression of the large-scale, advanced technology nature of FDI as an agent of globalisation driven by large TNCs based in the developed world.

But national governments have been far from passive onlookers. They have come to realise the necessity of being outward looking and export oriented as opposed to inward looking and import substituting (Ozawa, 1992). They are now aware that it is in their best interests to provide information and coordination for investors, and to attempt to ensure a viable infrastructure, a productive labour force and support institutions and services. Many of them recognise that locational advantages in the form of natural resources may no longer suffice in the competition for mobile capital; ‘created assets’ are the key (UNCTAD, 1999b). That having been said however, simply positing the nation-state in polar contradistinction to the firm falls well short as a means of elucidating the ramifications of globalisation. In fact some suggest that in the globalisation discourse the state-centred approach is already outmoded (Henderson *et al*, 2001), although a crucial role for the state is still claimed by others (cf. Sassen, 1996; Weiss, 1998). But whichever angle is adopted, both would agree that a factor of mounting significance as globalisation progresses is *regional multilateralism*, which emphasises the point that the global economy is still spatially structured (1).

Multinational regions, be they treaty-bound units like the EU and NAFTA or the “result of private economic forces” (Urata, 1994:177), constitute potent testimony to the globalisation process, while at the same time accenting the fact that it is also *geographically structured*. While the larger TNCs are increasingly devising globally integrated networking strategies (Dicken, 1992; Henderson *et al*, 2001), regional proximity and the extent of regional integration also appear to be decisive shapers of the globalisation process. With respect to trade, it is still intraregional flows that dominate (Yeung *et al*, 2001). Much FDI is still regionally-oriented (UNCTAD, 1999b); it would appear to be proximity *within their own region* which is often the decisive factor, especially for smaller firms (Duchénaut, 1995; Riedel, 1998). Here the region constitutes a matrix of locally dense interconnecting activities within the globalising framework. The implication that follows is that it is a natural seedbed for the ambitious smaller firm, like the LME, to test its internationalising potential. But there again, LMEs are, needless to say, not hostage to the region. LMEs themselves present a further dimension of globalisation. Like regions they have effected connections complementing globalisation. But unlike regions their connections are not of necessity geographically bounded and compact; they can extend out worldwide. That is, LMEs may integrate themselves into a format with global reach. How they achieve this, given their size and scope constraints recounted above, is the key question of this thesis.

The first step as a means for elucidation is to connect the LME to the evolution of theory encompassing the state, the firm and the multinational region. The review which follows is comprehensive but not indiscriminate. It comprises three parts: the first covers internationalisation theory (including trade theory), the second globalisation theory, and the third the placement of the LME within the theoretical framework. It examines the literatures (mainly from economics, business theory and economic geography) that attempt to explain how and why firms have made the transition from national to transnational firms. In addition to the summing up in the third part of the review, concepts of particular relevance for understanding the LME and the links between internationalisation and globalisation are foregrounded throughout.

### 3.4 Internationalisation Theory

Internationalisation theory started with trade theory. This latter was preoccupied with demonstrating a balancing of attributes and mutual advantages between nations achieved through the exchange of goods and services. In time, as firms became more prominent and more realism was sought, attention was directed at explaining the emergence of the large multinational corporation, while specific forms of internationalisation were incorporated into theory, including foreign direct investment. In this process the nation's role and situation were also re-examined, both as the reciprocating partner of business on the international scene and as the home and nurturing environment of smaller firms with internationalising potential, thereby contributing to the national economy. Imbuing the theoretical discourse is the interplay of the forces of supply and demand as enacted between and among nations and firms.

#### 3.4.1 Trade Theory, Equilibrium Theory and the State

Early trade theory concerned transactions between two nations and placed the emphasis on the ability of nations to *supply*. This helps to account for accrediting its pioneer, Adam Smith, with formulating the idea of *absolute advantage* whereby a country exports an item if it is the low-cost producer. In fact he was more circumspect, as witness: "When the producer of any particular branch of industry exceeds what the *demand* of the country requires, the surplus must be sent abroad, and exchanged for something for which there is a demand at home" (Smith, 1993:223; my italics). Nevertheless, supply capacity was still at the heart of Ricardo's theory of *comparative advantage* in which market forces allocate a country's resources to industries where it is relatively the most productive in forms of the return to labour, meaning that it could still import a product for which it is potentially the cheapest producer if it is even more productive in other goods. In this theory, trade is based on discrepancies in labour productivity between nations resulting from their different environments (Porter, 1990:11). Comparative advantage, with its inclination to supply-oriented interpretation, thereafter retained its appeal, resurfacing as the Heckscher-Ohlin model. But whereas Ricardo saw labour productivity as the crux of differentiation, Heckscher and Ohlin argued that countries' abilities differed depending on their particular endowments of factors of production, as represented by land, labour, natural resources and capital. As ultimately expressed in the Heckscher-Ohlin theorem (HOT), countries concentrate

their exports in production which takes advantage of the factors in which they are well endowed.

Prior to this, however, Menger and the Vienna School had stressed the centrality of *demand* in averring that “human needs are the driving force of the economic mechanism” (Schumpeter, 1997:84). In fact, they unduly emphasised the importance of demand in response to the undue emphasis on supply of the classical theorists, a conflict ultimately resolved by Marshall (1920) with his theory of elasticity of supply and demand. This has relevance to this thesis because one of the cardinal points of discussion is the reason for the selection of overseas locations by LMEs. The contention is that the LME, when making such a decision, confronts a continuum of production/market priorities equating to the supply and demand sides respectively like any other firm, but is more acutely aware of the need to accurately balance the options both due to size and scope constraints and its high degree of specialisation. If cost is of the essence, for example, production (supply) orientation takes precedence; if quick client access is called for, market (demand) orientation prevails. Further elaboration of this argument is to follow.

On a more prosaic level however, HOT’s ‘intuitive appeal’ (Winters, 1991:79) notwithstanding, comparative advantage theories are unrealistic for many industries because they ignore economies of scale while assuming universally identical technologies, undifferentiated products, and fixed pools of national factors (Hibbert, 1997; Porter, 1998:12), precisely the reverse or mirror-image of the LME as described above. Furthermore, even with the refinements emanating from the Ohlin-Samuelson research program, the end result was still “a highly simplified, aggregate GE [general equilibrium] theory that promised more than it was capable of delivering” (Blaug, 1992:188). As a consequence, the 1960s and thereafter saw attempts to introduce more realism to the Heckscher-Ohlin-Samuelson (HOS) doctrine (Samuelson, 1948), taking into consideration location-specific endowments (especially natural resources) and differences in quality of inputs (especially labour), while allowing for possible discrepancies in the production function of companies and imperfect markets (Dunning, 1988). There was also a need to explain international production as a major form of non-trade involvement. In noting that the Heckscher-Ohlin-Samuelson-Stolper model only allows for trade, for instance, Hirsch (1976) produced an international trade and

investment theory of the firm that incorporated firm-specific assets and other intangible proprietary assets. Internationalisation theory thus embraced the firm and FDI, seeking to explain why firms invest abroad, rather than simply exporting a 'surplus'. Explaining overseas investment/production (intrafirm) rather than trade (interfirm) became the focus. These refinements brought the debate closer to an accommodation of the LME. Location-specific endowments and the quality of inputs in the form of technical training facilities and acquired skills, for instance, can both be associated with the particular environment under which LMEs have developed, while firm-specific assets are the very essence of the LME's *raison d'être*. However, the initial concentration in the internationalisation theoretical discourse on intrafirm activity spelled a preoccupation with large, multidimensional corporations rather than the LME.

### **3.4.2 Internationalisation Theory and the Firm**

This was because of the apparent predominance of 'multi-activity *hierarchies*' (Dunning, 1995:465; my italics) which owed their origins to the exploitation of technological, organisational and financial advances, commencing from the last quarter of the nineteenth century, in a fashion purportedly more effective than would be possible for firms acting at arm's length. According to Dunning (1995), the role of hierarchies relative to markets as an organisational modality intensified throughout the twentieth century. This has been due to amplifying market imperfections emanating from increasingly specialised and complex economic activity, together with technological progress and political interventions. This eventually provoked a shift in theoretical preoccupation away from the emphasis on perfect competition and arm's-length transactions (trade) to the intricacies and consequences of market failure as causes of internationalisation. The concept of *hierarchical capitalism* as it has evolved assumes that a firm's prosperity depends on how efficiently management internally organizes its resources and capabilities and that companies react to structural market failure by absorbing the perceived inconsistencies rather than working with the market to find solutions.

With respect to internationalisation, the theoretical debate centred on explaining the growth of the multinational enterprise. Multinational indicates by definition that the firm in question has sent out capital in the form of money or in kind to finance or equip a project in another country. In other words, internationalisation theory saw its

beginnings at the downstream end of the internationalising process: foreign direct investment (FDI). Related here are evolutionary theories where the evaluation of FDI location hinges on the nature or stage of maturity of the product to be manufactured. Vernon's (1966) product life cycle theory, to take the most oft cited, envisaged production first being shifted abroad with the build-up of market potential while also attempting to forestall the impact of competition accompanying the diffusion of information. Subsequently, overseas production at the later stage of the product cycle is also assumed to be located where production factors are cheaper, and so it is a quest for cost minimisation when products have become mature and consumers more price sensitive. Hence, information – or knowledge – and cost became cardinal themes, and these were the essential ingredients of *internalisation theory* and transaction cost analysis.

The precursor of internalisation theory *per se* was Hymer (1976) who saw FDI as a result of an imperfect market environment where it was possible for firms to acquire certain net advantages over, or to eliminate, rivals with the intention of monopolising the market (Kim and Lyn, 1989). Recognising that local companies do not have the disadvantage of operating in a foreign culture at a distance from their home environment, there must be powerful reasons for embarking on FDI. The key factor here is that the foreign investor possess a distinctive, firm-specific advantage embodied in its intangible assets which is not transferable but which it can exploit in imperfect market conditions (Caves, 1971; Goodnow and Hanz, 1972; Hymer, 1976). Hence, although stemming from classic trade theory, the rationale provided here for FDI represents a departure from the model of perfect competition and inevitably provoked further exploration of distortions imposed by market structure, disequilibrium and failure as well as government intervention (Calvet, 1981). Epitomising the character of such imperfections are the oligopolist industries possessed of formidable barriers to entry which curb spasmodic competitive incursion (Knickerbocker, 1974; Krugman, 1979; Lancaster, 1980).

Reflecting this approach, MNE theory as developed by Buckley and Casson (1976) focuses on management's attempt to *control* the imperfect market for knowledge (McManus, 1972). Modern business encompasses much more than products and services; it also entails activities like research and development which are related



through flows of intermediate products. The trouble is that imperfections mean that the markets for these intermediate products are difficult to control, leading to the desire to internalise them rather than sell or share them. Hence they are exploited overseas by subsidiaries and not, for example, licensed subcontractors or agents (Buckley and Casson, 1976:31). Such internalisation can extend across national boundaries, hence the MNE (TNC). This approach regards the firm as an internalised composite of resources which can be parceled out to product groups or between national markets (Buckley, 1990). It expands *at the expense of* arm's length relations, maximising profits through the exercise of efficient intra-firm trade and the elimination of what may be regarded as excessive transaction costs incurred from middlemen, exchange-rate risk, infringement of intellectual property rights and bargaining costs (Buckley and Casson, 1976).

Gaining control over knowledge, Buckley and Casson (1976) theorised, was with the ultimate goal of minimising costs, a conclusion they reached through the application of transaction cost analysis. This focuses on the economic efficiency of mechanisms which have developed to coordinate and control transactions, where a transaction has been defined as the transference of a product or service across a “technologically separable interface” (Williamson, 1985:1). The costs incurred are contingent on three types of factors: the extent investments are made in order to conduct the transactions (asset specificity), the volume of transactions (transaction frequency), and the limited mental capabilities of the decision makers (uncertainty), this latter being analogous to incomplete knowledge. Internalisation of transaction costs can be seen as an act of incremental integration, aimed at stabilisation of input and output conditions and logically culminating in the consolidation of authority by a single party, and this progression signifies a growing degree of control by that party (Williamson, 1979).

Presented in this light, hierarchy and broad-based internalisation and control are essentially the practices of extensive corporations or conglomerates. In other words such theorising concerns ‘large firm’ internationalisation. The LME as described earlier in this chapter does not fit this pattern. Being highly specialised while aware of its bounded scope it has shied away from creating complex, all-embracing hierarchies, while, at the same time, its powerful decision-making independence has rendered it largely immune from external hierarchical predators. In fact, far from making the LME vulnerable, increasing specialisation and economic complexity have worked to enhance

its distinctiveness, especially in the environment to be elucidated in the following chapter. This has had the effect of ensuring that *differentiation* of core competence takes precedence over a preoccupation with plugging the gaps of market failure, while the 'chamber' keeps things out as much as it keeps things in. Internalisation, therefore, is necessarily highly selective, being intimately enmeshed with the exigencies of the core competence. The LME thus does empathise with the overseas entry mode literature which focuses its attention on control "because it is the single most important determinant of both risk and return" (Anderson and Gatignon, 1986:3), but within the narrow confines of its core competence. In that it is the very life-blood of the LME, it is essential that the core competence be firmly under its control through internalisation wherever it is taken. Conversely, transaction costs and the desirability of internalising them vary with the circumstances. The LME is discriminating and nonconformist in its identification of onerous costs. Williamson's 'technologically separable interface' can be contrasted here to the high wall of the 'chamber', inside which is a lean, if not sparse, management team. Arguably, augmenting the staff in order to eliminate transactions and uncertainty could *increase* costs rather than reduce them, particularly when there is a relatively high level of trust which can be at least partially attributed to the LME's own quality and competence. The position taken here, therefore, is that, given its intensely concentrated disposition, the LME is much more inclined to direct its time, money and energies to value creation centred on its core competence rather than to the internalisation of market failure.

### **3.4.3 The Smaller Firm**

The capacity for internalisation can also be a matter of firm size, as became apparent when nation-states started to embrace SMEs because of their perceived exporting potential to the benefit of national economies in the 1960s and 1970s. The state found a new role for itself as it devised measures to compensate for supposed SME disadvantages.

### *(a) SME Deficiencies*

This nurturing approach has been justified to an extent by the fact that SMEs have often been presented as deficient by comparison with their larger counterparts. Typical of the handicaps they are purported to face are limited sources of financing, the lack of managerial time, and rudimentary marketing skills, together with poor language capabilities and insufficient information gathering (Dichtl, Koeglmayer and Mueller, 1989; Duchénaut, 1995). Added to which, they may compare unfavorably with larger firms in terms of plant and equipment, design and productivity (Yong and Keng, 1990), and their perceived instability plus vulnerability to competition may instil misapprehension in the minds of potential overseas distributors (Jones, Wheeler and Young, 1992). Indeed, with respect to the SME attitude towards internationalisation through exporting, in this negative vein management is deemed to be indifferent, unadventurous and low in aspirations for the company, which in turn lacks technological prowess, unique products and an organisational structure geared to exporting (Cavusgil, Bilkey and Tesar, 1979). Small firms are often in highly fragmented industries with many competitors and so prone to price-cutting, while there are limited personnel with the time and aptitude for delving into the intricacies of exporting or for familiarising themselves with foreign cultures and practices (Welsh and White, 1981).

Extending this line of argument to FDI, given the claimed limitations tempering the SME's scope of manoeuvre, the motivation to invest abroad is depicted as exogenous in origin or irrational. With respect to the former, the firm may be 'pulled' overseas by larger client companies or host government regulation such as the imposition of tariffs, or it may be 'pushed' there as a result of a declining home market or other unfavourable domestic circumstances (Buckley, 1993). As for the latter, the venture may be stimulated by uninformed, personal hunch or instantaneous persuasion by acquaintances on the spot (Buckley, 1993; Chen, 1998), subject to no feasibility study, and implemented with no premeditated plan (Ferdows, 1980). More explicitly, the initiation of FDI may entail searching for potential locations, conducting feasibility studies, getting government approvals, building plants, installing machinery and equipment, hiring workers, and so on (Chen and Liu, 1998), much of which can be compromised because of lack of capital, managerial resources and risk-absorbing capacity (Buckley, 1979; van Hoorn, 1979). These deficiencies may lead to

underinvestment or an ill-advised partnership; they limit the scope of FDI and force precarious decisions based on insufficient knowledge and administrative techniques. In addition, management is not geared to reacting quickly and adequately to change and effective economies of scale are not attained to minimise transaction costs (Buckley, 1993).

#### *(b) Firm Size*

Firm size and its implications for internationalisation have hence been one of the major research preoccupations (e.g., Cavusgil, 1976; O'Rourke, 1985; Ali and Swiercz, 1991). The issue is raised that "size related characteristics may constrain a firm's ability to scan and analyse its environment and/or its ability to produce an effective strategic response" (Wyer and Smallbone, 1999:13), shortcomings which would impinge upon internationalisation endeavours as with everything else. By contrast, according to some advocates of largeness, the large corporation has been thought to have an elaborate formal structure where management acts within supposedly rational, justifiable parameters presaged on administrative prerequisites (Meyer and Rowan, 1977). It is highly disciplined and functions through the sophisticated control and mobilisation of specialists (Carson, 1985), so that in its activities abroad it can refer to accumulated data on economic conditions, apply econometric models to predict trends, and consort with influential political and business contacts (Douglas, Craig and Keegan, 1982). Hence, the tendency has been towards the conclusion that the larger the size, usually measured by number of employees, capitalisation and sales volume, the easier it becomes to conduct business on an international scale (Miesenbock, 1988; Aaby and Slater, 1989). Given the right stimuli, it was hypothesized that the response would be greater if the firm were large. This line of thinking paralleled the view of the small firm, at the other end of the size spectrum, as at a transitional stage in the life cycle of an organisation while in its current state suffering from size disadvantage (Becker and Porter, 1983). This being so, scholars studying the small firm environment have often contrasted its structure and behavioural patterns with its larger counterpart the better to define the small firm's predicament and distinctiveness.

One such distinctive aspect suggested here is the particular relevance of *proximity*, or conversely, psychological or cultural distance (Hofstede, 1984), to the

internationalisation process of the smaller firm, in that familiarity implies that acquiring the knowledge for achieving outcomes would be less costly and less time-consuming. Psychological distance has been defined as “the factors preventing or disturbing the flows of information between the firm and market” (Johanson and Wiedersheim-Paul, 1975:308), while cultural distance is described as “the sum of factors creating, on the one hand, a need for knowledge, and on the other hand, barriers to knowledge flow and hence also for other flows between the home and target countries” (Luostarinen, 1980:131-32). Examples of obstacles encountered include the language barrier, culture, political systems, the level of education, and the stage of industrial development. There have been plenty of studies indicating the preference for cultural proximity by overseas investors, notably among the Anglo-Saxon countries (cf, Wiedersheim-Paul, Olson and Welch, 1978; Cavusgil and Nevin, 1981; Davidson, 1983; Buckley, Newbould and Thurwell, 1988; Gomes-Casseres, 1989). The debate has even embraced large TNCs (Vernon, 1979; Buckley and Mathew, 1980), but the immediate geographical region beyond national borders has more often been seen as the natural business extension for the smaller firm (cf, Ibuki, 1994; Anderson, 1995; Duchénaut, 1995; Gomes-Casseres, 1997; Hsing, 1998), helping to breath life into the contention that regional integration is a parallel and contributing force in the process of globalisation (Robson, 1987; Jovanovic, 1998).

### *(c) SME as Different*

This observation also draws attention to the fact that a countervailing strand of SME internationalisation literature sees the process as undertaken by SMEs as different. The large company orientation is criticised by Dandridge (1979) because it *fails to deal with the small firm on its own terms* (Welsh and White, 1981). Closer scrutiny of the internationalisation process, moreover, began to unravel the notion of given size as the essential prerequisite. Czinkota and Johnston (1983), for example, opined that size was not relevant as a segmentation criterion among firms with respect to exporting and other studies have insisted that size as such is not a deterrent (Piore and Sabel, 1984; Edmunds and Khoury, 1986; Ali and Swiercz, 1991; Gemunden, 1991). But overall the patterns of SME internationalisation behaviour are still seen as distinct. In contrast to the internalising hierarchically organised, resource rich large corporation, this SME literature postulates that the small firm is much more dependent on external conditions

(Miesenbock, 1988), where it relies on exogenous networks and resource bases (Johnson and Mattson, 1989) and participates in a division of labour which is multidirectional rather than linear (Anderson, 1995).

*(d) The Evolving SME*

That having been said, there is another area of the literature, which essentially paints a positive, progressive picture of firms which are assumed to be SMEs. In fact, most firms involved in FDI currently are small and medium-sized (UNCTAD, 1997b:xv). The development of this body of theorising has itself been progressive. In the late 1960s, Simmonds and Smith (1968) suggested that the stimulus to start exporting originated outside the firm and resulted from the efforts of exchange agents. By the middle of the 1970s, Simpson and Kujawa (1974) had added internal stimuli, such as excess capacity, the entry of competitors into the export market, and the profit motivation, to a list of external stimuli which included trade fairs, sales agents' activities, and unsolicited orders. In addition, they averred that stimuli alone were not sufficient; the decision to export had to be proactive in combining such stimuli with a proper perception of the factors involved in the export process itself. Johanson and Wiedersheim-Paul (1975) described a trajectory, in which exporting constituted the first stage of internationalisation culminating in overseas production, which was based on the gradual acquisition of knowledge and experience. Into this phased progression, Bilkey and Tesar (1977) injected the flowering of management awareness and incorporated Johanson and Vahlne's (1977) concept of psychological distance in hypothesising a centrifugal thrust of escalating commitment. Subsequently, Cavusgil, Bilkey and Tesar (1979) fleshed out the psychological implications with their model of stimuli => organism => response, postulating that given the right stimuli the export response would be greater if the company *had over one hundred employees* and management was constructive in allocating resources for export development. Investigations regarding subjective motivation typically revealed that small firms saw the advantages of exporting being increased sales, market diversification and hedging against a domestic downturn (Rabino, 1980). Objective analyses could, for instance, uphold that SMEs had more chance of export success if their managers had overseas experience and were college educated and that the responsible personnel tended to be younger in modern than in traditional industries. In this way, theory began to probe the

proactive elements where the firm was perceived as an agent of positive, self-interested behaviour to realise internationalising goals in its own right (Lee and Brusch, 1978; Harvey, 1979; Reid, 1981) by consciously assessing and engaging external determinants including the state of the industry in question and the foreign market potential and accessibility (Denis, 1990).

In the theoretical debate about the internationalisation of the smaller firm, then, interpretations have ranged from the haphazard to the predetermined. In the ongoing research, assumptions which could perhaps be too easily made have been questioned and there has been recognition that even as the research is being conducted evolution is taking place. The main criticisms of the psychological distance concept, for instance, have concerned precision and change over time. Puxty (1979), for example, claims that it fails to lay out systematically how cultural differences influence entry choice and to provide statistical evidence based on large samples. In discussing how cultural distance affects mode of entry, Kogut and Singh (1988) surmise that “the results may only have validity within a particular historical time” (Kogut and Singh, 1988:429). “Recent changes in communications, and the general tendency towards global markets,” concur Benito and Gripsrud (1991:475), “indicate that the impact of cultural and psychological distance is likely to decrease over time,” while Sharma and Johanson (1987) voice doubts about the implied incrementalism. Proximity and its evolving relevance is a central issue for this thesis and will be taken up in later chapters.

#### *(e) The Medium-sized Firm and the LME*

Another central issue, as we have seen, is size, and so far a distinction has been made between literature which essentially concerns itself with the behaviour of large firms and that which concentrates its attention on smaller firms. However, the internationalisation of medium-sized enterprises as such has rarely been addressed, although there has been some work illustrating successful SMEs that have achieved medium size partially on the basis of aggressive exporting (cf. Smallbone *et al*, 1992). More to the point, a significant portion of work ostensibly devoted to demonstrating the peculiar attributes of the smaller firm have arrived at the explicit or implicit conclusion that it is the *medium-sized* enterprises within the SME classification which are more prone to internationalising and are therefore, as it were, shouldering the weight of the

argument (e.g., Cavisgil, Bilkey and Tesar, 1979; Bonaccorsi, 1992; Duchénaut, 1995). Moreover, not a few could be classified as LMEs, that is to say, specialised medium-sized firms with established, recognised markets of substance.

Here, scale of operations of a certain magnitude have been positively correlated with the potential (Kaynak and Kothari, 1984), intensity (Bilkey, 1978) and geographical scope (Calof, 1993), for example, all hallmarks alluded to above concerning the LME. As for FDI, research generally concludes that size *per se* is not decisive (Caves, 1974), although technology could be, and within the small and medium category *firms with technological advantages tend to be larger* (Wolf, 1977). Thus are the two defining elements of the LME aligned: size and outstanding attributes. That is, the distinction being made here depends not only on size of firm but also *type of firm*. Or, to put it in dynamic terms, the LME has accomplished a certain *stage* which can be sharply defined. This relative consistency and unity in character and behaviour allows for the LME to be isolated and pursued analytically, as if the role of the firm in the evolution towards globalisation had been placed under a microscope. This having been said, it must be borne in mind that the matter under investigation in this thesis is not the LME's potential for international undertakings as such but how, by dint of its size *plus* its character as manifested by its attributes, the internationalisation of the LME *differs* from other types of firm. Just as small firms are claimed to have recourse to networking when internationalising, it is argued here, the LME employs its inculcated capacity for articulation when proceeding down this path.

#### *(f) The Hypothetical Internationalising LME*

Articulation as attributed to LMEs here constitutes the balancing of attributes and constraints. Making this assumption, it is possible to draw on the literature to produce a hypothetical depiction of LME internationalisation, which can serve as a reference for the subsequent discussion. In initiating the internationalisation process, LMEs have been affected by both external and internal *stimuli* (Simmonds and Smith, 1968; Simpson and Kujawa, 1974), although usually capable of proactively engaging the stimuli => organism => response model proposed by Cavusgil, Bilkey and Tesar (1979). Because of their superior products and technology, their mood is likely to be expansionist rather than reflecting a reaction to declining domestic circumstances, and



even when 'pulled' overseas by internationalising clients or host governments (Buckley, 1993) it is because their expertise is *needed*. Moreover, while early research (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977; Cavusgil, 1980; Thomas and Araujo, 1985; Root, 1987) envisaged a 'phased progression' in internationalisation culminating in FDI, LMEs need not conform to a strict longitudinal/gradualist evolution. That is, later studies (Turnbull, 1987; Millington and Bayliss, 1990; Sullivan and Bauerschmidt, 1990; Anderson, 1995) have pointed to the relative ease with which stages can be leapfrogged and that the propensity and mode of internationalisation can vary substantially depending on whether the firm is in traditional manufacturing or modern innovation, for example (Boter and Holmquist, 1998). The timing, fashion and character of internationalisation, in other words, depend on what the firm has to offer. In this way the LME evokes the basic assumption of the contingency approach which is that "strategy performance relationships can vary across different environments and different firm sizes" (Siu and Kirby, 1998:53). This in turn reflects the scope and manner of the decisions made (Wind, Douglas and Perlmutter, 1973; Zeithaml *et al*, 1988).

Like every business endeavour, the LME's internationalising actions are of necessity modified by *bounded knowledge* and a concomitant degree of *uncertainty*. However, given the LME's expertise in its core competence, which because of the concentrated commitment, includes knowledge about rivals and markets beyond its domestic scene, in its *decision-making* it is less likely than some (certainly than the SME stereotype) to be compromised by a limited perception of the alternatives and selective search resulting in confined choice (Aharoni, 1966; Robinson, 1978; Luostarinen, 1980; Cavusgil and Godiwala, 1982; Johnson and Vahlne, 1990). Rather, it would be expected to be nearer to the position propounded by Cyert and March (1963), for example, who saw decision-making as a rational process designed to cope with the complexity and uncertainty of situations leading to resolutions founded on a *satisficing* criterion for performance (Lee and Brusch, 1978; Newbould *et al*, 1978; Reid, 1981, 1982; Haahti, 1998). Decision-making as practised by LMEs also underlines their insistence on autonomy and is related, as Johanson and Vahlne (1977) have pointed out, to overcoming the obstacles and accruing knowledge which is stored and retrievable and vested in the firm as *an entity*. This contrasts with the type of (smaller) firm which is a member of a network of competences where knowledge exists independently of the

individual actors, while being accessible to them to configure and reconfigure their own particular international activities (Anderson, 1995; Coviello and Munro, 1995). As opposed to this approach based on flexibility, the LME, as an entity, has articulated its attributes as it internationalises.

#### **3.4.4 Internationalisation Theory, the Eclectic Paradigm and the LME**

The LME can likewise be lodged, with qualification, in Dunning's (1979, 1981) *eclectic paradigm* which is an attempt to synthesise the various strands of internationalisation theory, whereby: "The idea of a paradigm is to provide an analytical framework into which subsets of specific operationally tested theories can be contained" (Dunning, 1988:10). Here the firm and the nation-state effect a symbiosis of sorts. The theory contends that when internationalising, the firm is seeking to expand. It possesses *ownership advantages* in the form of technology, for example, which allows it to expand, and has deemed that there are *internalisation advantages* in expansion within the firm rather than selling the rights to other firms, and that this is best accomplished by exploiting *locational advantages* somewhere overseas rather than at home. The paradigm is embedded within the socio-institutional framework of hierarchical capitalism, which assumes that the TNC is the possessor of its own "wealth creating and efficiency enhancing properties" (Dunning, 1995:466). However, ownership-specific advantages are not independent of location; choice of production site may well have a bearing on cost and the ability to supply markets. The host country is also thereby implicated in the action inasmuch as it must present location-specific advantages for the particular FDI project under consideration, and it is only when there is a *simultaneous convergence* of ownership, internalisation and location advantages that the implementation of FDI as a means of operating overseas will prove viable (Dunning, 1988; Geringer, 1990).

In placing the LME within the eclectic paradigm, the LME – just as Dandridge (1979) stated about the SME – *must be seen on its own terms*. It has been described earlier in this chapter as an independent, specialised, medium-sized company. In addition, as will be further elucidated in the following chapter on Japan's experience, the LME has been nurtured in an environment where specific comparative advantages in specific industries have developed to which over time it came to contribute. In direct contradiction to

classic comparative advantage theories, therefore, the LME has been an emblem of *differentiation* as a supplier in building and creating demand through its high degree of specialisation.

Furthermore, this intensive concentration on a closely defined area of activity has generated a particular approach to internalisation which has in turn contributed to the formulation of LME internationalisation strategy. To explicate this, internalisation is best categorised as two distinct types. First, there is *supply* internalisation which entails absorbing knowledge in the form of specialist staff, competitors, upstream and downstream processes, and the like in order to control the chain of supply to the maximum possible. Second, there is *access* internalisation as manifested by the firm selecting to establish its operations *in toto* in an overseas location in preference to licensing in order to control the market for its products. Outside the fixed boundaries of its designated expertise the LME has declined to exercise the option of supply internalisation and neither has it been subject to it. Devotion to core competence and insistence on independence aside, reasons for this can be found in an aversion to take-over and in notions as to where the weak links, translated into costs, are actually deemed to lie in different business cultures. Trust, however derived in a given society, favours more arm's length dealings and hence less internalisation of potentially deviating partners, for example. At any event, this particular combination of high-level specialisation and business environment has drawn the cost boundaries within which the individual LME is allowed to exist along contours diverging from those envisaged by this interpretation of internalisation theory (Coase, 1937). Incurring costs in arm's length transactions beyond these boundaries is apparently regarded as less irksome than internalising them for the LME, which has a conservative attitude to extending its boundary of corporate control. The LME has thus arrogated to itself space to grow as an *alternative* to the hierarchy.

On the other hand, for the very reason that it has successfully erected high entry barriers consonant with its specialisation, the LME, when internationalising, has usually been a keen devotee of access internalisation. The LME's ability to do this resides to a considerable extent in the environment in which it was raised. In terms of Heckscher-Ohlin endowments, LMEs have benefited especially within their country of origin from a highly educated labor force, plus capital, to develop differentiated technologies and

superior productivity, many of them being the direct practitioners of nationally promoted competitive advantages (Porter, 1990). In subsequent venturing abroad, therefore, control is encapsulated almost exclusively in the knowledge of technology and process, to an extent that reputation and demand often precede the LME's physical presence at overseas locations. Restated in the rubric of the eclectic paradigm, the LME's ownership advantage lies in a highly differentiated product embodied in a brand name and/or patented technology. However, this differentiation makes internalisation of the core competence *essential*, rather than a matter of choice because it constitutes the very existence of the company. The selection of location is then dictated by the time and space exigencies of this already internalised ownership advantage.

### **3.5 Globalisation Theory**

#### **3.5.1 Speed, Depth and Strategy**

Internationalisation theory started with the assumption of nations seeking equilibrium through trade; hierarchical capitalism induced a realignment of theoretical preoccupation to the (large) firm and the environment of market failure in which it functions; longitudinalism and other atomistic theorising are focused on the (small) firm and how it initiates and sustains business abroad, underpinning a spatially textured view of globalisation. Although the eclectic paradigm and contingency theory have pointed to multilateralism and circumstantial complexity they are still essentially firm-oriented. Globalisation, on the other hand, is multilayered and multidimensional. It is powered by a technological and communications revolution which has compounded the composition of action and relationship, the essence of which can be discerned by considering the changes taking place regarding location and organisation. As internationalisation metamorphoses into globalisation the whole matrix of economic behaviour is evolving. Trade, personnel and technology increasingly have global reach and interchangeability, while the powers of world organs like the IMF and GATT (now the World Trade Organisation) have been augmented and their role substantiated. At the same time, product life cycles are being accelerated, a process both affecting and being affected by more innovation and mounting multinational competition. Greater speed and depth represent the essence of globalisation, intensified strategy the response to it.

Corporations have a driving role, and their international production networks a structuring role.

*(a) Location and Process*

From the economic perspective, the term globalisation is "usually used to describe increasing interdependence among national economies through various means - including international trade, foreign investment, technology transfer and official development assistance" (Urata, 1994:177) (2). While initially in the post-war era this integrative process was mainly effected through trade, FDI has become more important over the past three decades and subsequently the way global production networks are organised. What the latter implies is the increasing mobility of firms and industries with respect to location. A typical depiction of what globalisation means for the large TNC is as follows. Over the last four decades this has inclined many multinationals away from the polycentric approach with which they started, whereby operations are organised on a country-by-country basis, to one where operations are coordinated across national boundaries (Kotabe and Omura, 1989), a tendency which has often led to extension within the immediate region (cf. Borrus, 1994). There has been increasing experimentation in borderless organisational formats, such as a shift from function- to product-oriented structures and the devising of matrixes which incorporate both these aspects within extended geographical settings (Rommel et al., 1995; Kneen, 1995). At the same time, the "globalisation of industries decouples the firm from the factor endowments of a single nation" (Porter, 1990:14), while mass-production, microelectronics and information technology have already contributed much to the disconnecting of technologies from specific industries. Individual products, on the other hand, are becoming globally standardised (Ohmae, 1985), not least because TNCs can engage in global sourcing which includes intra-firm trading as a major element (Kotabe and Omura, 1989). With growing technological flexibility, it is becoming increasingly easier to extend other factors, such as market knowledge, capital, physical artifacts and managerial control around the world (Brooks and Guile, 1987; Bryan and Fraser, 1999).

*(b) Realignment: Strategic Alliances, Clusters and Global Production Networks*

However, a growing segment of the literature indicates that globalisation has not necessarily been presaged on the augmented size of the business unit. It is just as likely to have stimulated adaptive restructuring and reordering. In such cases, mounting competition can have actuated downsizing and concentration on core competencies (Dunning and Narula, 1996), plus the resort to mechanisms aimed at simultaneously extending the corporation's reach while abating risk, namely subcontracting, joint ventures and strategic alliances (Harrigan, 1984; Porter, 1990; Dicken, 1992; Newman, 1992). With respect to the last of these, Dunning (1988, 1995) sees integrative currents at work through strategic, asset-acquiring FDI across national borders and more inter-firm cooperation in preference to stand-alone internalisation. Dunning (1995) argues that, while autonomous firms will continue to be the main unit of analysis, the ownership-location-internalisation configuration determining cross-border activities is being ever more affected by collaborative production and transactional arrangements between companies. Strategic alliances are concluded in order to gain access to new and complementary technologies, accelerate learning and innovation, and upgrade efficiency (Hagedoorn, 1993). As opposed to hierarchical capitalism with its predilection for the independent internalising of market failure, this *alliance capitalism* prefers joint internalisation of specified inter-related activities among free-standing, autonomous business entities. Hence, control by the individual firm is compromised by the need for effective response to rapidly changing circumstances. At the same time, however, transnationals are also seen to entrench their positions by devising networks of commodity chains in a global division of labour for their specific products (Gereffi and Korzeniewicz, 1994).

The acceleration of pace accompanying globalisation is also paradoxically breathing new life into geographically localised business clusters. To wit, advanced communication and transportation technologies make the clusters more accessible, while the clusters themselves become more viable for a wider clientele due to lower transaction costs coupled with the concentration of formal and informal information networks and specialised institutions (Porter, 1990). Multiple clusters form 'region states' (Ohmae, 1995), which in turn constitute the operational nodes within multilateral regions. Within the global, regional and local dimensions global production networks enlance "the flows of materials, semi-finished products, design, production, financial,

and marketing services [which] are organised vertically, horizontally, and diagonally in complex and dynamic configurations” (Henderson *et al*, 2001:17), in a process which arguably threatens to compromise the role of the nation-state. Such intensive activity within and between interconnecting geographical spaces implies that manoeuvre rather than scope and scale comprises the essential lifeblood of globalisation and that operating business units capable of decisive manoeuvre within such an environment are its essential pioneers. Because of its particular characteristics, the LME is one of the potential candidates for this role, and may be expected to be found playing an influential role in the formation, evolution and upgrading of regional spaces within the globalising economy.

### **3.5.2 The LME and Globalisation**

Mounting speed and depth have, if anything, been instrumental in promoting the internationalisation of the LME while accommodating its distinctive character. Information travelling in real time by definition, can reach small niche demand just as fast as huge volume demand; Stihl’s chain saws can infiltrate the world just like Cargill’s brand feeds. And inter-firm as well as intra-firm trade is facilitated; Molex’s connectors can find their way into IBM’s equipment as easily as IBM’s proprietary semiconductors can. Nevertheless, LMEs differ considerably among themselves depending on the character of their business. Illustrating this, the five Japanese case studies referred to earlier in this chapter and the five international LME examples described above are presented in sequential order from ‘downstream’ to ‘upstream’ in Fig. 3.1 below. As is apparent, they run the gamut of the production process. But in all cases they have in common the fact that they have embarked upon a course of internationalisation in an increasingly globalising environment, taking them well beyond their national confines. In some cases this was first initiated by a venture in the multinational region of which their country forms a part. That is, proximity was earmarked as a facilitating option in the internationalisation strategy adopted. As for the LME’s character within the environment of globalisation, the LME is much more intent on keeping the knowledge of its key employees and core technologies internalised and concentrated in the home country, imparting a distinctive character to the production networks of even highly evolved LMEs. In addition, it is less concerned with product

cycle and its implications than product evolution based on these core technologies. This is true even for end-product makers like LEGO.

**Fig. 3.1 LMEs in Downstream/Upstream Sequence**

Sequence	Company	Product	Description
(A)	Pentel LEGO	Writing materials Toys	For retail to end user
(B)	Shofu Stihl	Dental materials Chain saws	For end user/supplier/ servicer
(C)	Mabuchi Molex	Electronic motors Connectors	For assembly into finished products
(D)	Union Tool Fujikin	PCB drill bits Fluid control devices	For incorporation and use by manufacturer
(E)	TKK Norske Skog	Industrial metals Paper	For incorporation as (semi) basic materials

The LME, distinguished from the run-of-the-mill medium-sized enterprise by its concentrated dedication to its chosen specialisation, is characterised here as being not hierarchical, more bounded in scope and reach than the large TNC, self-limited in strategy (in that its is driven almost primarily by its ownership-specific advantages), and disinclined to network outside strict limits (its ‘bounded chamber’). In addition, it has been suggested that the geographical region, as an embodiment of proximity theorising, can offer the means for compensating for the firm’s limitations as it internationalises. As such, the region is seen as an aspect of spatial structure within the total global setting, and consequently a dynamic factor in the firm’s environment influencing its choices. The proposition which follows from these observations is that the LME may be making a distinctive contribution to globalisation, and that the multinational region may have presented a significant channel for accomplishing this.

Having established the LME’s distinctiveness it can now be justified as an analytical tool for theory building. In the foregoing account of internationalisation theory, it is apparent that the ‘large’ firm is rarely closely defined in terms of size, other than being above a given dimension. In fact, as the SME concept came to be widely accepted the large firm was defined, as it were, by default. So if the firm is not an SME (and



assuming that micro-firms are not regarded as a separate category), it is large. This lumps together firms with very different capacities and the tendency is for internationalisation theory concerning the large firm to concentrate implicitly on the very large TNC, while ignoring the smaller end of the category. Likewise, the problem with SME theorising – again with size as the basic criterion – is that the subject matter can be too amorphous, the observations and conclusions too generalised, while at the same time cluttered with diffuse detail. The LME concept also has size as an essential distinguishing element, although it deliberately straddles the boundaries of large and small as commonly set, and type of firm and stage of development are the two other indispensable ingredients. The story starts upon a certain stage in this specialised company's development having been attained. The LME by definition already has a successful track record, being a leader in its chosen field of business. It has a strong commitment to its core competence and it acts in a specific, deliberative fashion. So a definitive platform has been erected part way along the course as a vantage point from which to view the subsequent development of the LME as it internationalises. Or, to reverse the perspective, the process of globalisation can be analysed within closely delineated parameters.

### **3.6 The LME within the Evolution of Theory**

The following is a summary of this section on trade, internationalisation and globalisation theory, which can be read in conjunction with Fig. 3.2.

#### *Trade Theory: Nation to Nation*

Two nations trade together in a state of equilibrium. As theory progresses they are seen to achieve this by means of absolute advantage, comparative advantage through productivity, and then through endowments. The nation is the possessor and shaper of attributes, which it imparts to its component institutions, including firms.

#### *Internationalisation Theory: Firm vs. Firm*

Firms are perceived as growing organisations, which have extended such growth through hierarchy building and internalisation to save on transaction costs and boost

efficiency by conquering market failure. They have extended this practice beyond their national boundaries, as manifested by FDI.

#### *Internationalisation Theory: Nation plus Firm*

The nation is once again appreciated as actor. One reason for this is the growing awareness that it has within its borders small firms as well as large, and that these SMEs are potential contributors to the nation's welfare, including through internationalisation. This drew theoretical attention to the issue of company size. But even the large firm with powerful ownership advantages still had to take account of location advantages which could be manipulated by the nation-state.

#### *Globalisation Theory: Global TNCs + Multinational Regions*

Globalisation has realised new dimensions of integration and depth; it is multifaceted and multilayered. This has led to (a) networking in global space within and among firms to meet the challenges presented by the speed of action and the speed of change, (b) the emergence of multinational regions as the arenas for economic activity.

#### *Globalisation: Multidimensionalism*

While globalisation is in one respect by definition of a piece, the inner workings are becoming infinitely more complex and difficult to pursue analytically.

There is a need for:

- (i) recognition and analysis of multiple actors at various levels and of various dimensions;
- (ii) use of clearly defined concepts, shorn of impedimenta, as tools for tracing the paths of globalisation activity;
- (iii) analysing globalisation from various starting points and standpoints by employing these tools.

The LME is one such concept because:

- (i) it possesses strong characteristics developed in a given national environment;

- (ii) it is a highly distinctive type of firm bonded with its clearly delineated core competence;
- (iii) it functions adeptly on the multinational regional and global stage.

**Fig. 3.2 The LME within the Evolution of Theory**

Theoretical Subject	Theoretical Focus	Supply/Demand
<b>Trade</b>	<div>Nation to Nation</div> <ul style="list-style-type: none"> <li>* Absolute advantage</li> <li>* Comparative advantage</li> </ul>	<div>Supply</div> <div>Equilibrium theory</div> <div>→</div> <div>Supply and demand continuum</div>
<b>Internationalisation</b>	<div>Firm vs Firm</div> <ul style="list-style-type: none"> <li>* Hierarchy</li> <li>* Internalisation</li> </ul> <div>Nation plus Firm</div> <ul style="list-style-type: none"> <li>* Home and host nations create locational advantages</li> <li>* Small firm internationalisation</li> <li>* Eclectic paradigm as explanatory framework</li> </ul>	
<b>Globalisation</b>	<div>Technology/Communication Revolution</div> <ul style="list-style-type: none"> <li>* Global Sourcing</li> <li>* Global networks</li> </ul> <div>+</div> <div>TNC</div> <ul style="list-style-type: none"> <li>* Strategic alliances</li> </ul> <div>* Production/commodity chains</div> <div>+</div> <div>Multinational Regions</div> <ul style="list-style-type: none"> <li>* Intraregional integration</li> <li>* Interregional integration</li> <li>* Selective locational upgrading</li> </ul> <div>↓</div> <div>Multidimensionalism</div> <ul style="list-style-type: none"> <li>* Co-evolution/mutual interaction of firms and locations</li> </ul> <div>↓</div> <div>Need for new analytical concepts</div> <div>↓</div> <div><b>LME</b></div>	

## **PROPOSITIONS**

### **P3**

*Globalisation is a process which at the same time entails extension (reach) and intensification (depth). As theory it is the culmination of attempts to interpret integrative forces, starting with trade between nations, then addressing the rise of competing hierarchical firms, and the evolving relationship between the nation and the firm. The concept of globalisation itself emerged as a result of rapid progress in technology and communications, the advent of the TNC and the acceptance of liberal politics; with the development of economically integrating multinational regions, the workings of globalisation have become multilayered and multifaceted. This has provoked a need to study globalisation from various angles and the LME, because of its distinctiveness, character and contribution presents one such opportunity.*



## **RESEARCH QUESTIONS**

### **RQ3**

*(a) How did the LME come into existence as something distinguishable from the large firm on the one hand and the SME on the other?*

*(b) To what extent is the LME the product of a specific national environment based on a particular historical evolution, giving rise to a particular industrial structure?*

*(c) What distinctive role have LMEs come to play within that structure?*

### 3.7 Summary

In this chapter the third concept driving the thesis, globalisation, has been introduced in theoretical terms as the culmination of present-day thinking concerning internationalisation. The three concepts of LME, articulation and globalisation drive the thesis, while it is recognised that the nation-state and the multinational region have important roles to play in the globalisation process, the latter being particularly relevant when considering the influence of proximity, which can be instrumental in paving the way to internationalisation for the smaller firm like the LME. As a means for interpreting the progression of events, the theory of globalisation is seen as the latest stage in an evolution which started with trade theory before moving on to internationalisation theory. Globalisation ushers in multidimensionalism, calling for new tools of analysis.

*Concept 3: Globalisation* is the modern elaboration of internationalisation, distinguished from the latter theoretically by its powerful integrative forces, which are both exogenous and endogenous to the geographical regions comprising its arenas of activity. It has been addressed by way of a review of internationalisation theory, to include those aspects with integrative potential, notably proximity.

The specific characteristics of the LME can be matched against the theoretical background. Being constrained by size and scope of operations and yet a leader in its core competence, it is more keenly affected by its production/market (supply and demand) orientation options than the large firm, while having more potential than the SME of accomplishing an advantageous compromise with global reach. This is to a considerable extent based on the location-specific endowments it has initially benefited from and the firm-specific assets it has thereby accrued. Not being a hierarchy builder, it has instead concentrated on differentiating and developing its core competence, which it has then sought to control totally, while not seeking to internalise all transaction costs. Having in most cases started as SMEs, LMEs have achieved differentiation in size, type and stage through articulating their core competence into leadership in their chosen field. This gives them a hypothetical advantage over SMEs as internationalisers, while making them compact and manoeuvrable in a world where the larger TNC is increasingly obliged to react to accelerating change (initiated by competitors,

governments, pressure groups) through divisional rearrangements, strategic alliances and networking. Thus does the LME stand out as a distinct entity in the globalising context, while at the same time demonstrating its theoretical validity.

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### *Notes*

(1) The word 'region' here refers to geographically extensive multinational blocs such as East Asia as described in Chapter Five. It does not mean the intensive concentrations of economic activity either within or spanning national borders as described by Scott (1998) and Ohmae (1995a), for example, although these 'region-states', to use Ohmae's term, are recognised as highly cogent forces contributing to the shape and character the multinational regions assume.

(2) In the broadest sense, the term globalisation also encompasses transformation in culture, politics and international relations as well as economic transformation, but in this thesis the focus is on the economic (Held *et al*, 1999).

## Chapter Four

# **The Japanese Industrial Structure and the LME**

### **4.1 Introduction**

Japan is often categorised along with Germany as a ‘late developer’, which means that its industrialisation process got underway some decades after that of the leaders, Britain, the United States and France. It follows that its industrial structure had attained distinctive form and substance by the time this account of its subsequent evolution commences after the Second World War. However, for the purposes of this thesis, anything of significance that happened before can be woven into the tapestry of events as they have infolded over the five and a half decades since 1945. During that time, the development of Japan’s industrial framework is seen to have comprised two phases, one leading to and encompassing the high-growth era, and the other confronting internationalisation and the need for structural change thereafter. The divide between these two phases is a convenient juncture to recognise the arrival and establishment of the LME within this framework. Consequently, having been only partially discernable in the first phase, the LME assumed a definitive role in the second. At the same time, from the very start of this latter phase Japan was increasingly engaged with the outside world and its LMEs proved themselves particularly adept at participating in this process.

### **4.2 Methodology Note**

#### **4.2.1 Aims**

The aims of this chapter are to determine how the Japanese business/industrial structure has contributed to the development of LMEs and how this has been instrumental in shaping a type of firm capable of internationalising in a distinctive



way. In this way, the work of Nakamura (1962, 1990) about LMEs is extended beyond Japan to the international scene.

#### 4.2.2 Approach

The LME concept has been framed and adopted to view the economic activity of globalisation from a different perspective than is usually taken, that is, in terms of companies somewhere in the middle rather than from the vantage point of the very large or the very small. It is what Mintzberg calls a “creative leap” (1979:584) in the quest for new ground in exploratory research. Japan is reckoned to have an unusually large number of such companies which have developed there over time, and it is also located in the distinguishable region of East Asia. The intention is, in later chapters, to analyse both deductively and inductively the way these Japanese LMEs (*chuken kigyō*) have internationalised and contributed to regionalisation within globalisation. But it is first necessary to ensure that the LME is viable as a concept; it is necessary to show that the LME has developed and can be said to exist. For this it is necessary to review the evolution of the Japanese economic structure and to demonstrate how the LME has come to be posited within that structure, and then how this type of firm has embarked on internationalisation from its Japanese roots. This is to be effected in the following by a longitudinal literary review of Japan’s industrial history since the end of the Second World War. Although Nakamura (1990) is virtually the only economist to examine the LME *per se*, much can be deduced from writers discussing the economy in general and those who specialise in the study of SMEs. Thus, a range of literatures is drawn on, mainly in Japanese and English, but also including works in Chinese and French. There is a large body of literature in English, chiefly by Americans and Japanese being published in English, concerning the large-firm environment in Japan and various aspects of industrial policy. However, apart from Whittaker (1997) and a few others partially, smaller Japanese companies have not been addressed by writers in English. Therefore, most of the literature concerning SMEs referred to in the following is Japanese. Also used have been organisations providing basic research information

and company websites. The explanation of the methodology for operationally determining the individual Japanese LME is reserved for Chapter Six.

### 4.3 Overview

Prior to the Second World War, Japan's industrial structure had developed to the point where it was dominated by a few huge conglomerates, known as *zaibatsu*, complemented by a myriad of smaller concerns. This constellation gave the impression of being an early version of a dual economy, although with a distinctly more Anglo-Saxon flavour than the post-war period we are about to describe, as symbolised by a flourishing stock market. Things began to change with the start of the Sino-Japanese War in 1937 which subsequently merged in with the Second World War, as the government sought increasingly to control the economy. The stock market was shut down, the Materials Mobilisation Plan dictated goods allocation, the Munitions Ministry officiated over corporate board appointments, industry control associations oversaw production, and specific banks were designated to specific companies. These institutions remained to a greater or lesser extent after the war came to an end, as were certain practices like life-time employment, which had only really taken off due to the growing shortage of skilled workers as the war took hold (Okazaki and Okuno-Fujiwara, 1999; Dore, 2000). At any event, as will be seen, attempts to realise outcomes on a planned basis surfaced as industrial policy and attempts to control production gave rise to cartels. In the same vein, banks largely eclipsed stock markets as sources of financing while affording the backbone of patient capital. These, in positive and negative ways, constituted part of the environment in which LMEs were generated.

The post-war era can be conveniently divided into two phases, each comprised of three periods, as shown in Table 4.1. The first two and a half decades after the war, constituting the first phase (1945-1970), were devoted to rehabilitation, reconstruction, and catching up. The three decades thereafter (1970-2000) were marked by pressures for change as illustrated by (i) the need for greater efficiency

and productivity impelled by the floating exchange rate system and the oil shocks, (ii) the need to internationalise and globalise in order to grow and survive in a world of increasing mobility and competition, and (iii) the need to recognise that the model that had worked in earlier times no longer met the exigences of a later era. Throughout, forces functioned to shape outcomes. One of the most important, in the first phase, was that policies which aggressively called for and assisted rapid industrial development were selective, both with respect to industries and individual firms. This was the seedbed for the evolution of LMEs. One consequence of this was that, in the second phase, many of these LMEs, by dint of accumulating expertise in industries earmarked for their potential – although there were others, too, cushioned by no such prognostication – were eventually to transcend their national borders *en route* to embracing internationalisation. This expansive trend was contingent upon Japan's extraordinary economic growth as represented in Table 4.1 by the advance in GDP per capita over the entire period. The periodisation presented in this table is also useful for documenting the progression of events. Moreover, the first phase corresponds to the early evolution of LMEs while the second accords with their passage through internationalisation in the direction of globalisation.

**Table 4.1      Periodisation for Postwar Japan and Growth Rates of Japanese Economy**

Sub-periods of postwar years		GDP per capita (\$)	Average annual growth rate of real GDP
Phase 1: 1945-1970	Phase 2: 1970-2000		
1. 1945-1952	The Occupation Period	380	5.0
2. 1952-1960	The Reconstruction Period	760	9.2
3. 1960-1970	The Rapid Growth Period	966	10.4
4. 1970-1980	The Shocks Period	4,789	5.2
5. 1980-1990	The Internationalisation Period	14,387	3.8
6. 1990-2000	The Economic Reform Period	32,496	2.2

Source: Economic Planning Agency, *Ajia Keizai* (The Asian Economy), 1997.

NB. \$380 is for 1948 and \$760 is for 1956. The figures thereafter are calculated by deflating the nominal GDP by the average annual exchange rate in the IMF's *International Financial Statistics*. Growth rates are those for the real GDP in yen.

## 4.4 First Phase – 1945-1970

### 4.4.1 The Occupation Period (1945-1952)

By 1945 Japan had lost about one quarter of its national wealth, meaning that the amount of war damage was approximately equal to the net addition to national wealth between 1935 and 1945 (Tsuru, 1993:8). Although this represents considerable loss over a short period, it is nevertheless worth pointing out that as far as steel, machine tools and other machinery made from steel are concerned, for example, Japan still had in workable condition more than twice the facilities it had in 1931 (Pauley, 1986). Be that as it may, the order of the day was recovery as symbolised by the establishment in mid-1946 of the Economic Stabilisation Board (*Keizai Antei Honbu*; ESB), the herald of industrial policy and precursor of the Economic Planning Agency (EPA). At the start of the following year ESB inaugurated Japan's first modern industrial policy, initially prioritising coal and steel and subsequently electric power, shipbuilding and fertilizers (Calder, 1988; Johnson, 1982). This was accompanied by a reversal of sentiment in the American business world, which began to see that a restored Japanese capitalism would be a profitable customer (Tsuru, 1993). Thus was international rehabilitation already in the wings.

At the outset, Occupation attitudes had been relentlessly trained at the dismantlement of the *zaibatsu* and the decentralisation of the economy as a whole. This intention found concrete form in the enactment of two bills, the Anti-Monopoly Law in 1947 and the SME Agency Establishment Law in 1948, which complemented each other in their stipulated aims. The former was enacted to regulate excessive concentration of economic power and eliminate unfair trade practices. The latter, in addition to opposing such concentration, also embodied the planned policy objective of creating a proactive environment for smaller firms which could act as an effective barrier to monopolistic tendencies and, in so doing, disperse economic power (Watanabe, 1992). However, this 'democratisation' drive was short-lived. Already, by the middle of 1948, the Occupation's Holding Company

Liquidation Commission charged with the task of dismembering culpable conglomerates had reduced its list from 325 to 100, with no banks any longer included (Tsuru, 1993:41). Even more revealing was the fact that of the funds disbursed as of the end of January 1950 by the Reconstruction Finance Corporation (RFC), which had been set up in 1947 for supplying long-term loans to pivotal industries, almost 50% went to a mere 29 companies, heavily concentrated on coal mining interests and other industries dominated by very large firms (Kurose, 1997:3). Another crucial determining factor is what became known as the Dodge Line, an anti-inflation package implemented by Joseph Dodge at the behest of the US Chiefs of Staff, which had, among other things, recommended limitations on credit and improved rationing and allocation of raw materials and manufactured goods. This had the effect of decimating expenditure plans, in turn inducing serious deflation which the Bank of Japan (BOJ) attempted to alleviate through its Tight Money Neutralising Measures (*Kane Zumari Kanwa Hosaku*) for channeling funds to distressed companies. There were two consequences of this thrust and counterthrust. First, BOJ's emergence as indispensable central lender was to give the government leverage in the implementation of industrial policy, while in addition elevating the status of banks as suppliers of capital. Second, Dodge's policies started a process of rationalising Japanese industry in that the cuts in subsidies forced companies to invest and upgrade. In practice, investments became concentrated in large corporations because they constituted the best credit risk for the banks (Vestal, 1993). Meanwhile, at the other end of the spectrum, the millions of persons who had been demobbed, repatriated and released from armament-related industries provided a pool of cheap labour destined to be a significant contributing factor in the continuing subjugation of the small firm.

Nevertheless, Japan was still one of the world's more industrialised countries by the standards of the time. Apart from the large body of disguised unemployment in the rural districts, the problem Japan faced was not so much wartime destruction of hardware and people, but rather a paucity in knowledge and skills with regard to the new American-led scientific industrial revolution which had taken effect while Japan

remained isolated during the war years. In fact, for the very reason that it still possessed a deep reservoir of hardware and skills, Japan was able to catch up very quickly with other advanced countries by importing the innovations and know-how already developed. "By the end of the 1940s Japan was sufficiently advanced in the general skill of her labour force as well as in entrepreneurial capabilities so that she could absorb the fruit of technological progress without much difficulty and even improve upon them as in the case of electronics and cameras" (Tsuru, 1993:69). This is one good reason why it was able to take full advantage of the first of the booms which were to mark the subsequent Reconstruction Period catalysed by the Korean war; American special procurements for prosecuting the Korean War were roughly equivalent to 25% of Japan's exports in 1951 (Vestal, 1993:26).

#### **4.4.2 The Reconstruction Period (1952-1960)**

But booms were followed by slumps, and it was this volatility which impacted on industry's structural choices. At the same time, the overriding goal affording added relief to the embryonic denouement was economic autonomy as the natural sequel of the Peace Treaty effective as of April 1952. This meant the primacy of an industry promotion strategy (*sangyo ikusei seisaku*) over the niceties of domestic economic 'democratisation'. Initially the administration viewed reconstruction as essentially a job for the large and elite corporations and banks, while the world of small enterprise was regarded more as an intrusive social issue. However, the speed at which recovery took place was to oblige large-scale assemblers to resume their pre-war practice of subcontracting out to smaller specialists, while the boom-and-slump instability disinclined them from assuming the extra employment burden inherent in internalisation.

More specifically, following fast on the signing of the Peace Treaty came the removal or moderation of restrictions on the former *zaibatsu*. As well as reflecting the lack of public antagonism towards such business groupings, this was also consonant with a preoccupation with size as a panacea for growth: large producers

were to be financed by large banks and have their goods shipped by large trading companies. In line with this, the Anti-Monopoly Law was amended in 1952 to allow for cross-shareholdings and to raise the permissible maximum shareholding by financial institutions from five to ten percent. This reordering of priorities was accompanied by the refinement of policy aimed at rationalisation, plus the modernisation of selected industries as the means to consolidate economic autonomy. Given added poignancy during the slumps following the booms, rationalisation sought to eliminate inefficiency and obsolescence and to upgrade productivity through the introduction of modern equipment and new technologies complemented by enhanced management skills and standardisation. It became the rationale permeating the three-tier approach comprising (i) the selection of industries deemed essential, (ii) the designation of firms thought to possess the right scale of operations, and (iii) the firm in-house targeting of cost reductions and product improvement. Already, in 1951, the Foreign Capital Law had given MITI (1) control over technology imports, while the Japan Development Bank (JDB) was established to channel funds to designated industries. Raising the technological level of these industries was the subject matter of the Law to Promote the Rationalisation of Firms passed in the following year. But here again, rationalisation was associated with size: the larger the company, the more efficient it was expected to be (Vestal, 1993).

The subsequent stage of this process in the second half of the 1950s saw attention oriented towards synthetic textiles, plastics, petrochemicals, electronics, machinery and machine tools. New industry development was now at the core of the endeavour, while industry rationalisation was becoming more specific as illustrated by the laws enacted to promote the machinery and electronics industries (Vestal, 1993; Yamamura, 1997). The outcome was that by the close of the 1950s a whole panoply of nurturing devices was at the disposal of MITI and other concerned government ministries and agencies, including the vetting of potential recipients of subsidies, authorising of foreign currency, licensing for the import of foreign technology, granting of tax breaks and so on (Johnson, 1982). Direct government

loans to the machinery and electronics industries - initially amounting to up to one third of the investments and even at the end of the decade still around 10% - performed the added function of stimulating private investment because of the implied guarantee of support. Moreover, firms in favoured industries responded positively by earmarking a substantial percentage of their capital expenditure for technology imports (Vestal, 1993). It was the turn of the screw which ensured that by the middle of the 1950s the cotton textile manufacturers, Kanebo and Toyobo, were already destined to cede their primacy to the manufacturers of steel, automobiles and electronics.

Throughout this process with MITI at the helm, the emphasis was on the promotion of industries, but with competition maintained within these industries so that no national champions predominated. This was contrived by allocating foreign technologies to a selected few – but nevertheless a plural number of firms – to ensure that no single company gained undue advantage (Yoshihara, 1994). Moreover, competition was also selective. For one, foreign direct investment was restricted to insulate Japanese firms from outside threat. Added to which, the reconstitution of former *zaibatsu* alignments meant that they could compete among themselves while *excluding* others from this competitive arena, and at the same time act effectively as a group, exercising oligopolistic power over smaller suppliers to force down prices. Such machinations were greatly aided by the fact that on the reverse side of the coin the huge number of unemployed provided the cheap labour reserve to enable innumerable startups based on trifling capital outlays which then indulged in *excessive* competition, inevitably much to their own detriment. The rehabilitation of large firms, in other words, exacerbated the predicament of small firms (Kurose, 1997). This in turn, although also incidental upon the slump after the Korean War boom, led to legislation such as the Emergency Measures Law for the Stabilisation of Specified SMEs allowing for the formation of cartels exempted from the Anti-Monopoly Law. This again was with the appropriate size in mind, the better to compete with larger firms, although with the main social objective of shoring up employment (Vestal, 1993; Tilton, 1996). As such, smaller firms overall



were marginalised, their overriding role deemed to be as receptacles for surplus labour.

Moreover, the act of selection, by definition, implies non-selection. In its early stage, Japan's industrial policy did not embrace the smaller firm, an omission it only started to rectify in the second half of the 1950s. Even then, only firms in specific industries were involved. Industrial policy did not affect SME policy as a whole and SMEs were viewed in terms of the dual structure problem (Ito, 1996; Teraoka, 1997). Nevertheless, on a more positive note, the Smaller Business Finance Corporation (*Chusho Kigyo Kinyu Koko*) was established to provide investment funds and long-term working capital for modernisation (Calder, 1988). More to the point, there were some successes. For example, the sewing machine manufacturing industry immediately after the war had benefited from a combination of favourable circumstances: abundant and cheap job-seeking mechanics, clusters of small-scale, family-run workshops, 600,000 machine tools needing conversion to peaceful uses, and a huge American market. By the 1950s this had helped spawn a domestic machine tool industry based in the main on small firms and actively subsidised by the government (Tsuru, 1993:78-9).

#### **4.4.3 The Rapid Growth Period (1960-1970)**

The 1960s was the era of trade and liberalisation. Industrial policy was trained on strengthening the economy and economic growth emerged as a specific policy. At the same time, planning as such receded rather than disappeared. The Third Rationalisation Plan for the steel industry typifies the format. No longer did the government control investment activities nor did it directly adjust investment to be consistent with long-term demand estimates. Instead, it restricted itself to providing advice and targets while making the industry itself primarily responsible for adjusting investment outlays (Vestal, 1993). Steel also affords the classic illustration of the 'investment generates investment' phenomenon that characterized the high growth era of the 1960s. By reducing its own costs, the steel industry stimulated investment

directly in the automobile industry and in shipbuilding, and hence indirectly in the machine tool industry. And to complete the virtuous circle, this rising domestic demand for steel further drove investment in the steel industry. From 1960 to 1970, steel production ballooned from 22 to 93 metric tons, propelling automobile production from 165,000 units to three million (Donnet, 1991:54-5). Hence, it was corporate investment and the drive for market share rather than consumption which propelled economic growth. It was in the 1960s that Japan achieved global leadership not only in steel but also in shipbuilding, cameras, radios, stereos and black and white televisions (Fingleton, 1995; Porter *et al*, 2000), and by the end of the decade the output value of the machine tool industry was three times greater than at the beginning (Friedman, 1988). Although over-expansion engendered a rash of bankruptcies in 1964 and 1965, recovery from October of the latter year presaged an unprecedented average annual growth rate of 11% to the end of the decade during which Japan's economy overtook West Germany's in 1967 to become the third largest in the world (Vestal, 1993).

The underlying motivation for such vigorous expansion and change was supplied by the ambition to catch up with the West blended with a strong dose of external pressure. Resolution of the latter had become a matter of paramount urgency by the start of the decade. Having joined the IMF in 1952 and GATT in 1955 Japan had dragged its feet over imports and had been compelled by international pressure to implement 'voluntary restraints' on exports of textiles and other light industry goods. But in 1963 Japan accepted Article 11 of GATT. Then, in 1964 it was elevated to Article 8 status in the IMF – which meant that it no longer had the option of manipulating its exchange rate to protect its balance of payments – and was also formally enrolled into the OECD (Tsuru, 1993; Kurose, 1997). Unequivocal as a result was a commitment to trade and capital liberalisation, which in turn bred two consequences for economic structure. First, it compromised industrial planning in that it reduced the government's ability to orchestrate investment and to obstruct encroachment from abroad. Second, it raised the competition stakes and heightened the awareness of the need for solutions. Nevertheless, this did not deter

prevarication; Japan held back on liberalisation to 1967, and only then liberalised in five stages to 1973 (Vestal, 1993).

At the corporate level, one reaction to the imminent infiltration of foreign business was a spate of mergers which picked up pace from the middle of the 1960s: Prince and Nissan Motors in 1965, Nissho and Iwai in 1968, Yawate Steel and Fuji Steel in 1970 (Vestal, 1993). These, be it noted, were horizontal amalgamations of peer companies aimed at emulating the magnitude and character of the presumed foreign competition. But preparation could be more nuanced. To take a case in point, Toyota of the time lacked the financial clout to confront the American Big Three head-on in mass production mode. The answer was to reduce model change-over time which was the direct forbear of the famed just-in-time inventory system and the inspiration behind quality control circles, both of which quickly spread nationwide (Abegglen and Stalk, 1985; Lincoln, 1993). The need to disseminate these and associated concepts, such as statistical process control and value analysis, induced Toyota's creation and tightening of supplier associations, which again reflected a broad national preoccupation with refining inter-firm relations in the interests of lowering costs and upgrading quality (Lincoln, 1993; Womack *et al*, 1990). Synchronising with this was growing specialisation in very narrow lines of product in highly focused plants. The emphasis here, then, is not on internalisation, but rather on a more selective designation of suppliers, a more cohesive inter-firm integration, and a more concentrated plant-product specialisation. Moreover, pressure on Japan was also self-generated. The rapidity of industrial transformation had put a strain on capital and labour, further modifying the economic structure. Already by the start of the decade capital was in short supply, offering further openings for the banks. Consequently, most investment did not derive from equity or retained earnings but from bank borrowings which reinforced the banks' status and decision-making influence, notably among the *keiretsu* as the *zaibatsu* were now called (Abegglen and Stalk, 1985) (2). Although this drew subcontractors closer to, and even into, *keiretsu*-type groups, in the main their individual corporate standing remained inviolate and intact.

What did happen, though, was that with the burgeoning economy the large companies grew larger and absorbed a greater proportion of the workforce to increase volume within the same broad parameters, albeit without internalising incidental functions. Complementing this, the consequent evaporation of surplus labour diminished the wage differential between large and small companies, which in turn was a contributing factor in weeding out many of the weaker SMEs (Dore, 1973). But full employment also induced a positive reaction from industrial policy for SMEs, symbolised by the passing in 1963 of the Basic Law for Small and Medium Enterprises, which stipulated the need for plant modernisation, improved technology and mergers to raise competitiveness, and promotion of exports (Vestal, 1993). More to the point, SMEs were becoming recognised as potential contributors in strengthening Japan's international competitiveness and generally upgrading the industrial structure. Already in 1960, the need for modernisation of industries associated with SMEs had been acknowledged with the passing of the Emergency Measures Law for Promotion of SME Industries, and this intention was further substantiated with the enactment of the SME Modernisation Promotion Law to complement the above basic law in the same Diet session in 1963 (Teraoka, 1997). SME policy was now directed to adaptation and the removal of handicaps, while affording as much protection as possible while these were being achieved (Kiyonari, 1970:44). The key elements of this SME modernisation were, first, creating the appropriate scale by eliminating the 'too-many, too-small' tendency and, second, correcting the configuration between industries. This was called 'upgrading the SME structure' (*chusho kigyo kozo no kodoka*). Thus, with such adjustments, SME policy had undergone a complete reversal from its initial stance in the late 1940s. From being a counterweight to economic centralisation and an aspect of social policy, it was now an integral part of industrial structure policy for confronting the international challenge. In line with this, by the second half of the decade, the focus of industrial policy was on fostering "firms that can take on internationalisation" (*kokusaika ni tatakaeru kigyo*) (Kurose, 1997:98).

Internationalisation in the first instance signified exports. As stated in the National Income Doubling Plan (*Kokumin Shotoku Baizo Keikaku*) decided upon by the cabinet in December 1960, it was deemed necessary to form an industrial order equipped with an export structure responsive to the requirements of the world market. This would entail: (i) the establishment of an industrial configuration where advanced processing industries, especially machinery manufacturing, occupied a strategic position and (ii) centralisation, merging and concentration coupled with specialised production (Kurose, 1997:77). But this fell short, overall, of eliminating fierce domestic competition. Encapsulating all these factors was the motorbike industry, where the fifty manufacturers of the 1950s were whittled down to thirty by 1960, eight by 1965, and finally four - Honda, Yamaha, Suzuki and Kawasaki - by 1969 (Abegglen and Stalk, 1985:44), a process which paved the way for that industry's subsequent aggressive export drive. On the other hand, concentration of *capital* by no means implies *geographical* concentration. Restrictions on industrial expansion in urban areas, as well as the desire to cut costs, in time presaged relocation of manufacturing to form successive rings of application from, for example, an initial concentration in Tokyo, out in the first phase to the adjacent prefectures of Kanagawa, Saitama and Chiba, and then further out to Ibaragi, Gunma and Tochigi (Whittaker, 1997:45). That is, while the head office remained in the capital, research and development could have moved to the outer suburbs and mass production to the hinterland. Extension of this logic was apparent in subsequent foreign direct investment.

#### **4.5 The Emergence of LMEs in Phase 1**

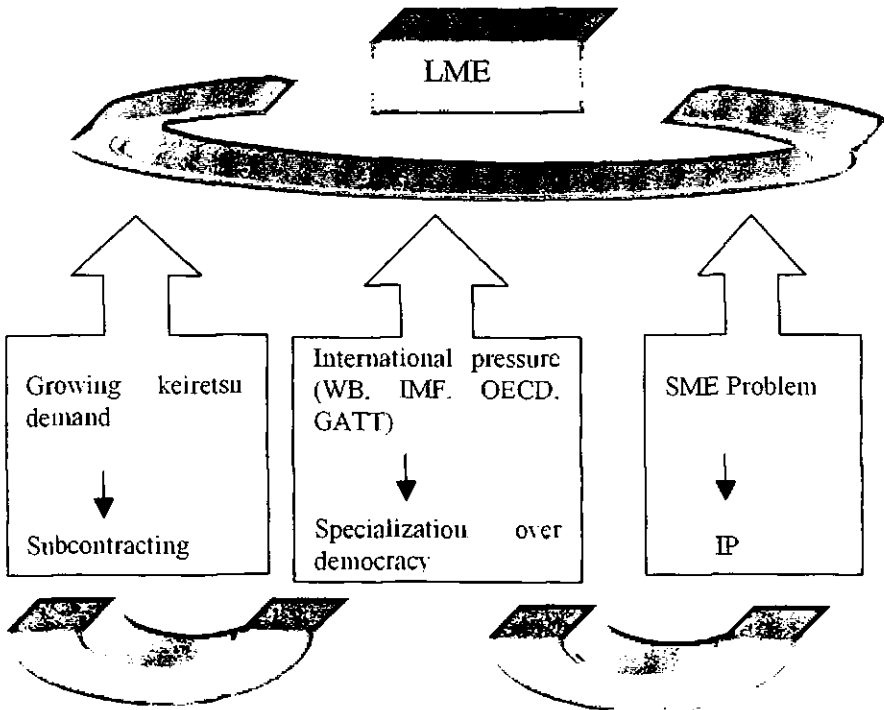
The statement that the first postwar phase outlined above corresponds to the early evolution of LMEs is in effect complementary to the observation that this phase saw the foundations set for the economy as a whole, of which LMEs started to become a significant part. Over the broad front the postwar economy to the beginning of the 1970s was shaped by three interacting factors: (i) the partial rehabilitation of the

*zaibatsu* as *keiretsu*, and the subsequent demand for intermediary goods; (ii) international pressures which both stimulated growth and demanded adaptation; and (iii) the application of industrial policy and its eventual extension to SMEs. All of these factors likewise were instrumental in fashioning the LME as depicted in Fig. 4.1.

#### 4.5.1 Keiretsu Demand

One of the Japanese government's first moves upon regaining political autonomy in 1952 was to commence on a progressive emasculation of the Anti-Monopoly Law, which in any case, according to Tsuru (1993:19), was destined to disintegrate because of its alien character. The immediate effect was to allow for the reconstitution of loosely integrated conglomerates. However, this backtracking was accompanied by the reinstatement of a practice which had first originated among large group companies in the 1920s: a commitment to job security right down to the shopfloor level to continue to attract and retain employees who had to be given expensive training in order to absorb and utilise the more sophisticated technologies (Hatch and Yamamura, 1996; Francks, 1999).

**Fig. 4.1 Japanese Industrial Structure and LMEs**



The consequence of this was to turn what had been a variable cost in production into a fixed cost (Gerlach, 1992). High growth during most of the time from the 1950s to 1970 meant that this did not surface as a specific problem at the time. What it did mean, though, was that flexibility was sought with respect to other costs – including the supply of raw materials and components – to offset the internalised fixed cost of labour. The solution in many cases was to seek stable supplies from *outside* the company. This formulation was reinforced by the government's opting for growth policy, inasmuch as rationalisation favouring large firms engaging in key industries filtered down in the form of orders to specialist suppliers, many of which were of prewar origin. The coercive pressure of the Dodge Line early on in this process had restricted the allocation of materials to the most efficient, which, in addition to large assemblers, also included putative LME suppliers in designated sectors such as machine tool manufacturers providing for the sewing machine industry (Tsuru, 1993; Kurose, 1997), thus contributing to the elaboration of the pattern of inter-firm dealings.

The externalisation of supply has from early on in Japan's industrialisation process been a distinguishing feature of its economy (Odaka, Ono and Adachi, 1988; Francks, 1999), and its embellishment during the phase from 1945 to 1970 contributed considerably to the consolidation of many LMEs. Machine tools, as already implied, constituted an exceptional case, to the extent that by the early 1960s LMEs – Makino Milling Machine ([www.makino.co.jp](http://www.makino.co.jp)) prominent among them – were accounting for around 40% of production (Nakamura, 1990:198). But there were plenty of others emerging to claim niche domains in industries essentially associated with large firms, instances including: in the radio and television sector, condensor makers Mitsumi Electric\* ([www.mitsumi.co.jp](http://www.mitsumi.co.jp)) (3) and Shizuki Electric ([www.shizuki.co.jp](http://www.shizuki.co.jp)); in the automobile industry, brake lining maker Akebono Brake Industry ([www.akebono-brake.co.jp](http://www.akebono-brake.co.jp)); and in plastic processing, vacuum-formed refrigerator parts maker, Kodama Chemical Industry ([www.kodama-chemical.co.jp](http://www.kodama-chemical.co.jp)) (Nakamura, 1990:200-206), all of which firms could claim LME status. To Gerlach, the "basic dynamic in Japanese industrial evolution has been the spinning off of new

satellite firms from a central set of operations while organizing these firms collectively under a high-level capital and control system" (Gerlach, 1992:92). What he is describing is a setup whereby LMEs exist within or peripheral to a *keiretsu* system and, in the first phase under discussion here, among the above firms this would certainly have been applicable to Akebono Brake, for example.

However, this hierarchy pattern is far less prevalent than Gerlach suggests. The plethora of machine tool manufacturers speaks against it (Friedman, 1988) and Gerlach himself cites an obverse case in Omron ([www.omron.co.jp](http://www.omron.co.jp)) – an LME in the first phase – which has consistently adhered to its initial precept to remain independent of formal linkages with any group (Gerlach, 1992:200). The conclusion he reaches, faced with this seeming contradiction, is that control in the Japanese business environment is achieved not through arm's-length trading but rather through longstanding relationships sustained among sets of companies in degrees of alliance with each other (Gerlach, 1992:232). This point is accepted inasmuch as the primacy of relationships is writ large in the lore of Japanese business practice. Moreover, there is no intention here of attempting to argue the case for LMEs as atomized traders of classical theory. The crux of the issue lies, rather, in differing notions of firm autonomy, the prescribed sphere of the individual firm's activities, and where the line is deemed to be drawn between the firm and the market. Contrasting Japanese and American experience – as Gerlach (1992) does – affords perspective here. The first point to note is that autonomy is not an absolute for firms in either country (Evans, 1999); owners and clientele shape the form the company takes. The American company, for example, is more likely to be vulnerable to stock market whims and takeover, while by contrast much of the stock of even large Japanese corporations is rarely, if ever, traded. This characteristic is much more in evidence for many Japanese LMEs, especially those with a strong family presence, and besides which, not a few are still private (Patrick and Rohlen, 1987). Moreover, the demand for fast and substantial dividends together with less consistent business relationships exert a pressure on American firms to react by diversifying, while the ownership structure of the Japanese firm affords it more time and leeway to deepen



its specialisation and hence its prescribed sphere (Yoshihara *et al*, 1981), in essence allowing the distinctive strategy of articulation to emerge. Bearing in mind that these differences are relative rather than unconditional, they can be summarised as in Fig. 4.2.

**Fig. 4.2 Characteristics of Japanese and American Firm Environments Contrasted**

<i>Japanese Firm</i>		<i>American Firm</i>
high trust	vs	low trust
cooperative	vs	adversarial
closed ownership	vs	open ownership
sustained integrity	vs	takeover risk
consistency	vs	change
specialisation	vs	diversification
externalisation	vs	internalisation

What this implies, in Coase's (1937) terms, is that the market is accommodated differently in Japan and the U.S. Or to put it another way: "All societies draw the line somewhere between cooperation and competition ... The Japanese just tend to seek to draw that line closer to the cooperation end of the spectrum" (Dore, 2000:38). At any event, organisation of the make-or-buy paradigm to achieve the same ends is fashioned differently so that, although the scales in Japan are tipped more to the 'market' alternative, this is not in the classical arm's length mode (Williamson, 1993:4). Large Japanese firms choose to buy more intermediary inputs than do large American firms, but in more mediated markets, and this mediated market structure affords the LME the economic space in which to develop its competitiveness. Furthermore, during the first postwar phase under discussion, the costs that militated against American-style internalisation as far as the large Japanese corporations were concerned were embedded in business practices to an extent peculiar to Japan, and in the exigences of the time. That is to say, the fact that suppliers already existed or that this ingrained practice would encourage their

establishment, together with the 'welfare corporatism' which began to prevail from the late 1940s (Dore, 1973), plus business volatility over much of the phase, represented to the *keiretsu* fraternity elements of *cost* which had to be balanced. Hence was created an environment of demanding yet supportive buyers where intermediate suppliers could flourish. In a rapidly expanding economy certain successful SMEs could achieve LME status and in the process refine a strategic philosophy (articulation) that was exceptionally suited to long term survival and success. Gerlach (1992) would no doubt claim that Akebono Brake, with its initial overwhelming reliance on Toyota as client, was a classic case of alliance capitalism in which it as supplier was allowed to exist under a *keiretsu* umbrella. However, the externalising tradition provided scope for consistent development of a specialisation on the part of the supplier, and this in time saw Akebono wend its way towards becoming an increasingly independent LME with a considerably broader customer base than it started with.

#### **4.5.2 International Pressure**

External pressure as a contributing factor in the development of the LME came in two forms during this phase: first, there was the build-up of the Cold War in the 1940s and 1950s which focused the emphasis on Japan's rehabilitation; second, there was Japan's renewed membership in the international community by way of the World Bank, IMF, GATT and the OECD which demanded conformity to more liberalised trade and capital regimes. The intensification of the Cold War between the United States and the Soviet Union made the Americans amenable to an economically robust and politically cooperative Japan. This gave rise to an emerging consensus between SCAP (Supreme Commander of the Allied Powers) and the Japanese authorities that the technological transformation to realise this was to be attained through 'rationalisation' (*gorika*), the essential ingredient of which entailed promoting the introduction of mass-production techniques throughout Japanese industry (Morris-Suzuki, 1994). Eagerly desirous of catching up with the West, the post-SCAP Japanese government pursued this approach by forcing the general

populace to save and single-mindedly channelling funds into industry in a drive which was ultimately to be manifested in the high-speed growth of the 1960s, given expression in the National Income Doubling Plan formulated at the beginning of that decade (Johnson, 1982; Calder, 1988; Fingleton, 1995). Formerly speaking, in 1949 MITI set up the Industry Rationalisation Commission (*Sangyo Gorika Shingikai*) as the precursor to the enactment of the Law for the Promotion of Enterprise Rationalisation (*Kigyo Gorika Sokushi Ho*) (Morris-Suzuki, 1994). Institutions established in the early 1950s with the task of implementing various aspects of this policy included the Japan Development Bank, the Fiscal Investment and Loan Plan (for rerouting postal savings to the industrial endeavour), the Export-Import Bank and the Japan External Trade Recovery Organisation (Arase, 1995). In addition, as of 1951, the Ministry of Finance made annual revisions to the Taxation Special Measures Law which included the accommodation of rapid depreciation for designated investments aimed at rationalisation, and the exclusion of strategic machinery from import duties (Johnson, 1982:234). Moreover, the extenuating international environment added extra weight to the argument for favouring the large firm because of its assumed superior efficiency and stability. In response, the large firm assumed a system of organisation and staff relations which, rather than being traditional, was essentially “a product of circumstances, history, and events coming together in a particular social and cultural setting” (Abegglen and Stalk, 1985:209). This situation could also justify a national strategic outlook whereby the effort was heavily concentrated on a restricted range of industries with the potential to spearhead recovery and growth, which by the late 1950s had been elaborated into a program for nurturing new industries as well (Johnson, 1982, Fingleton, 1995).

Thus the mounting international pressure sensed at home, together with the need to export abroad, spurred rationalisation at all levels of Japanese industry during this period. Rationalisation giving rise to mass production was to lead, by the end of the 1950s, to the need for specialist parts makers capable of producing much greater volume than hitherto (Whittaker, 1997), a capacity deemed by Nakamura (1990) to be one of the first defining characteristics setting LMEs apart from other medium-

sized firms in the post-war era. Success in dealing with the growing reality of competition with international implications is what began to set apart the LME from the merely 'successful SME' from the 1960s. However, with obligations to international institutions now pressing, the biggest issue at the start of the 1960s was the liberalisation of trade, to be followed by the liberalisation of capital in the middle of the decade. In both cases Japan procrastinated out of concern for the consequences. Liberalization of designated infant industries, still considered too weak to withstand international competition, but at the same time anticipated to be critical for the future, was delayed for as long as possible. These included the vehicle and electronics industries, for example, which were to prove fruitful territory for LMEs as intermediary and end-product makers. Fear of takeover by large western concerns also accounted for the slow implementation of inward FDI liberalisation during the second half of the decade, notably in the very same industries because of their attractiveness to foreign investors (Uematsu, 1990). In fashioning their response to the imminent challenge, large companies – Toyota being the classic reference – devised their own versions of quality and inventory control together with close relationships with key suppliers, by now seen as contributing to lower costs and higher quality (Lincoln, 1993). Akebono Brake commenced its growth to LME status in this environment. Complementing this in what they saw as a race against time to ensure survival in the encroaching international arena, the bureaucrats of MITI and other competent ministries sought to erect a viable structure, this being the central preoccupation of industrial policy from the mid-1950s.

#### **4.5.3 Industrial Policy and the SME**

The contention here is that industrial policy was influential in the creation and consolidation of LMEs during the first phase from the beginning of the 1950s to 1970, although the realisation of this process was far from even throughout. These LMEs were, in fact, exceptionally successful SMEs, so how they achieved their elevated status can be traced by studying the evolving relationship between SME policy and industrial policy. Fig. 4.3 delineates three distinct stages in this

relationship. These are punctuated by characteristic laws, the contents of which serve to typify the prevailing agenda during each of the three stages.

**Fig. 4.3 Industrial Policy (IP) Approach to SMEs in Phase 1**

Stage	Approach to SMEs	Law	Date	Remarks
1	IP distinct from SME policy	EML for Stabilisation of Specific SMEs SME Stabilisation Law	1952 1953	SMEs seen as social problem rather than economic contributors
2	Some SMEs included in IP	EML for Promotion of the Machinery Industry EML for Promotion of the Electronics Industry	1956 1956	Proactive linkage of IP to SMEs in designated industries → LMEs
3	Incorporation of SME policy into IP	SME Basic Law SME Modernisation Promotion Law	1963 1963	Said laws eventually applied to all SMEs, so dispersing effort

NB: EML = Emergency Measures Law

*Stage 1: SMEs as social problem – overall protection*

By the time Stage 1 commenced in the early 1950s, in essence the notion of embracing SMEs as equals in industrial planning known as ‘economic democratisation’ (Ishida, 1999), which had blossomed ephemerally during the immediate post-war period, was already a dead letter. Economic growth eclipsed all other objectives. Industrial policy, therefore, in its initial rehabilitation guise was concentrated on coal and steel and the largest corporations to set the foundations for this growth. The vast majority of SMEs were seen as irrelevant if not downright obstructive to this process, to the extent that by March 1949 when the loans disbursed by the Rehabilitation Finance Corporation were discontinued, only 2.5% of them had gone to SMEs, and even then eligibility was restricted to those SMEs capitalised at at least one million yen (Kurose, 1997:5). By the early 1950s, the overabundance of small firms in certain industrial sectors, notably textiles, but also light machinery and agricultural and forestry products, was thought to threaten the very existence of these and related industries. To cope with this, the emergency

measures law (EML) recorded for Stage 1 in Fig. 4.3 stipulated the right of MITI to establish cartels which placed restrictions on individual firms with respect to production, shipments and facilities. (The second law in this stage is actually an amendment to the initial EML to make it semi-permanent because of further deteriorating circumstances.) The main goals in this exercise were maintaining employment and protecting industries, with the government injecting funds first through the Japan Development Bank and then, from 1953, through the Small Business Finance Corporation. And what is to be noted here is that for the cartelising SMEs, opting for survival in association with others in like predicament translated into a significant retreat from the ideals of open competition. As such, lacking a self-instilled motivating force, they became appendaged to an industrial policy with strong oligopolising tendencies. At the same time, the outlines of a modern division of labour were becoming more distinct. In the metals and machinery industries, for instance, forming the base were what were to become, and remain, moderately skilled and indifferently specialised SMEs in sheet metal processing, can making, casting, lathe grinding, and so on (Nakamura, 1990). This is the image beloved of dual economy theorists and quite possibly it would have been the reality if there had been prolonged economic stagnation.

*Stage 2: SMEs partially inducted into industrial policy – selective modernisation*

Stagnation was not the case, however. Powered by the United States, the free-world economy began to boom in the mid-1950s and Japan was in a position to take full advantage. But as its economy took off there was a need for increasingly sophisticated technological inputs in addition to the more mundane supplies and processing indicated above, and the speed of progress was such that this was often best met by outsourcing rather than internalising. Furthermore, the commitment to growth and catching up internationally called for considerable refinement of industrial policy with the emphasis on an economic structure rising from the foundations laid by coal and steel. Building this structure, given the limitations of time and capacity, required the designation of *certain* industries for favourable

treatment, and again the machine tool industry offers the perfect illustration. Already in 1953, as a harbinger to Stage 2, MITI had encouraged the establishment of the Japan Machine Tool Producers Association, and thereafter for the rest of the decade the government showered a range of financial and tax incentives on that industry (Calder, 1988). So although, with its mounting complexity, industrial policy was beginning to concede that SMEs could have a role to play, the key to Stage 2 was *industries*, not the firm *per se*. The two EMLs for promoting the machinery and electronics industries clearly demonstrate the approach. Being industry-oriented, they were only directed towards SMEs inasmuch as given SMEs proved themselves capable of serving the cause of growth. Industrial policy was still concentrated on large corporations with SMEs included incidentally provided they fitted. Moreover, size was still a factor with assistance being afforded to those SMEs who had already achieved an appropriate scale of production. In other words, the SMEs who could benefit from the policy were upper level SMEs who had already attained a certain scale of operations (Kurose, 1997). Many of these were prospective LMEs who had contributed to their own fortune in this virtuous circle by aiming for growth markets, selecting niche products guaranteeing a high market share, and sticking thereafter to their specialisation, like (to illustrate from the top of the list of 110 companies in Chapter Six) Anest Iwata\* ([www.anest-iwata.co.jp](http://www.anest-iwata.co.jp)), Arakawa Chemical\* ([www.arakawachem.co.jp](http://www.arakawachem.co.jp)), Asahi Diamond\* ([www.asahidia.co.jp](http://www.asahidia.co.jp)) in painting machines, printing ink resins and diamond-tipped tools respectively.

### *Stage 3: SMEs fully accommodated in industrial policy – selective protection*

By the early 1960s there was no longer a problem of surplus labour. This induced a change in industrial policy: it ostensibly became more positive, no longer blocking competition among SMEs but promoting it (Vestal, 1993). The idea was, that is to say, that SMEs were to be embraced into the fold of the viable economy as full adults as it were. This was symbolised by the passing of the SME Basic Law (*Chusho Kigyo Kihon Ho*) in July 1963 which, in addition to calling for plant modernisation and upgraded technology, was also aimed at correcting the

discrepancies – notably wages – between large and small firms. The latter were to be elevated to the stage of growth and international competitiveness, still the overriding goals of industrial policy. However, this law also stipulated protection from imports where possible, thus conceding the impossibility of totally impartial application. Consequently, the wage gap with large firms remained unsolved and many SMEs continued to survive behind protective barriers. Furthermore, the basic law was complemented by the SME Modernisation Promotion Law (*Chusho Kigyo Kindaika Sokushin Ho*) which was to have an even more ambiguous tenure. In addition to modernisation as such, this law was also for the purpose of encouraging the change of business activities with a shift from areas which had lost their competitive advantage to growth areas. But this encountered stubborn resistance and policy implementation proved flabby. Having initially been intended for application to specific industries, this law came to be applied indiscriminately, and as the labour shortage intensified in the second half of the 1960s SMEs in any industry could argue successfully that they needed funds for modernisation (Kurose, 1997).

So whereas the promotion EMLs in Stage 2 looked to picking out the good to make them better in the interests of tightly delineated policy objectives, the SME basic and modernisation promotion laws in Stage 3 were overwhelmed by the vastness and amorphous nature of their allotted tasks. What is more, by attempting to accommodate all firms in all industries industrial policy inevitably saw its centre of gravity shift. It passed over the watershed from positive to negative. Thenceforth it increasingly assumed the role of insulating domestic industries from pressure to adjust (Uriu, 1996; Dore 2000). As such it no longer afforded the constructive dynamic conducive to a thriving incubation of LMEs, and we cannot say that this generalised SME support policy was an active influence on subsequent formation and growth. But by now this was not a problem for many LMEs because Stage 2 had already provided the wedge to ensure their survival and growth, as long as they 'articulated' according to the evolving circumstances, as discussed below. It was Stage 2 of the SME policy stance that was the most influential in terms of encouraging LME formation. By the middle of the 1960s, Nakamura's (1962)



observation that a 'third type' of company was a significant player in the Japanese economy was amply justified. These were not all integrated into subcontracting systems as Calder implies (1988:53); independent suppliers like Murata Manufacturing ([www.murata.co.jp](http://www.murata.co.jp)), Mitsumi Electric\* and Alps Electric ([www.alps.co.jp](http://www.alps.co.jp)) played a vital role in both the transport equipment and electronics industries (Whittaker, 1997:31) as the exports of these two industries started on their advance from 12% and 6% in 1962 to 35% and 20% in 1985 in export shares respectively (Nepote and de Vienne, 1999:126). These firms were emblematic of an evolving Japanese structure where manufacturers produced a narrow line of products in very focused plants (Abegglen and Stalk, 1985). With rapid economic growth, moreover, they were joined by highly specialised downstream suppliers like Pentel\* and Shofu\*, expanding in tandem with a booming domestic and export markets. *LMEs were now an integral part of Japan's industrial structure and as such set fair to play a distinctive role in the historical evolution comprising the second phase.*

## **4.6 Second Phase – 1970-2000**

In discussing the second phase, I will roll together a characterisation of the key features of each period with an analysis of their significance as an influence on LME formation and behaviour.

### **4.6.1 The Shocks Period (1970-1980)**

The first shock of the decade for the Japanese was what they came to call the 'Nixon shock', the main element of which was the sudden revaluation of the yen from a fixed rate of ¥360 to the dollar to a floating rate which rapidly rose to around ¥270, resulting from the U.S. decision in August 1971 to abandon gold convertibility (Tsuru, 1993; Ichimura, 1998). The second was the first oil shock followed by the immediate emulation by other primary goods producers. These events had the effect of virtually halving the rate of growth of GNP for the first half of the 1970s to 6% from the average of 11% in the halcyon days of the previous

decade (Ichimura, 1998:7), while also elevating the cost of energy and raw materials as a proportion of total imports and thereby undermining the security assumptions on which rapid growth thus far had been based (Calder, 1988). Thereafter saw a second hectic yen appreciation starting in 1977 and the second oil shock of 1978-79. Added to which was the culmination of six years of phased trade liberalisation in 1973. The overall effect was a sea change in structure in which by the middle of the decade machinery and equipment had replaced industrial materials as the leading sector of the economy (Yoshihara, 1994). At the same time, domestic wages were increasing, overseas competition as epitomised by the usurpation of the cheaper end of the footwear industry by South Korea and Taiwan was picking up steam as it heralded the stirrings of a regional division of labour. Industry after industry – having succeeded in the catch-up phase – found itself confronted with the need for creativity at the technological frontier.

So even by the beginning of the decade, and especially as it unfolded, Japan was traversing unfamiliar territory. It needed to cut production costs, reverse its energy-intensive policy, divest itself of labour-intensive manufacturing, come up with new technologies, and invest abroad, all against a backdrop of an unyielding recession which gripped the world economy through the middle years of the 1970s. The buzzword which surfaced to encapsulate the response to these exigences was 'knowledge intensification'. The acquisition and application of knowledge was to change the structure and behaviour of Japanese firms. MITI designated strategic industries based on advanced knowledge, including computers, semiconductors, robots and VTRs (Johnson, 1982), and in 1971 the former emergency measures laws for the promotion of the machinery and electronics industries were rolled into one as the EML for the Promotion of Specific Electronic and Machinery Industries aimed at supporting state-of-the-art technologies in certain 'critical' fields where firms were deemed to fall short of the international standard. Upon this law's deadline being reached in 1978, it was superseded by the EML for the Promotion of Specific Machinery and Information Industries which differed from the former in emphasizing software, as well as cooperative efforts rather than mergers (Kurose,

1997; Doane, 1998). Such cooperation was embodied in the VLSI (Very Large Scale Integration) programme under MITI auspices involving the cream of the electronics industry, including Fujitsu, Hitachi, Mitsubishi Electric, NEC and Toshiba, which owed its success to its leaning towards mutually and broadly beneficial basic research (Doane, 1998). Success, cooperative or otherwise, was less forthcoming with respect to SMEs where circumstances and demands were infinitely more heterogeneous. Come the 1970s, the view of the policy authorities had become much more positive towards SMEs, seeing them as contributing to the economy in ways larger firms could not, and thereby reflecting a sentiment that was to become widespread in the industrial world (Sengenberger *et al*, 1990). A shift to knowledge-intensive development therefore became the summons for SMEs too. But, implemented largely through trade associations and the like rather than individual firms, it lacked definition and logic. Moreover, the dramatic yen appreciation and the worst recession since World War II replaced knowledge with survival as the key priority, and SME policy subsided once more into protectionist stagnation.

In stark contrast, knowledge intensification served to give further definition to LMEs and to enhance their economic role. It did so in two ways: first, it compelled more exacting standards on already existing LMEs; second, it constituted the seedbed for a new crop of LMEs. Already, by the start of the decade, they were a significant force. In a survey report entitled 'Japan's Enterprise Concentration' published in 1971, the Japan Fair Trade Commission stated that in terms of overall capital and profit ratios firms they called LMEs (*chuken kigyo*) accounted for over 20% of the nation's totals. In the same year the Japan Long-Term Credit Bank produced a report called 'The Competitive Relationship between Large Firms and Leading Medium-sized Enterprises' from which it can be inferred that 95.9% of the LMEs it surveyed were in the position of ensuring their own markets, testimony to their autonomy (Nakamura, 1990:427). In the course of the decade, according to Nakamura (1990:425), the number of LMEs, their capital and their profit were to increase by factors of about 2.2, 2.2 and 3.9 respectively. This occurred despite a

considerable shake-up. There were those LMEs which fell by the wayside because they could not, other than master mass production techniques, entirely extricate themselves from SME practices. Others were unable to develop new products after their original pioneering success died, and yet others could not cope with the managerial and organisational problems attendant upon their own growth. Alternatively, those LMEs which came through, in addition to their rigorous application to specialisation and production processing, embellished their tactics by erecting their own entry barriers to rivals and working to guarantee their specific market shares, developing in both a creative and defensive way the concept of articulation. As specialists their relative contribution to exports began to grow and they were accepted as partners in joint research, as was Pentel\* with Murata Data in facsimile equipment, for example (Doane, 1998:122). And, most importantly, they extrapolated on their existing knowledge base to create new products and markets. Kato Spring Works ([www.kato.co.jp](http://www.kato.co.jp), name changed to Advanex in 2001) started on the diversification of its precision springs for electrical equipment, business machines, and automobiles; 3,000 types a month with lots of anything from 100 to 100 million (Nakamura, 1990:384; JCH, Spring 2002:525). Taiho Industries ([www.taihokogyo.co.jp](http://www.taihokogyo.co.jp)) activated its knowledge in high polymer chemicals to produce anticombustion, waterproofing and cleansing agents to realise a wide range of markets in different industries (Nakamura, 1990:388). At the forefront of the knowledge-intensive restructuring, these LMEs were refining their arts of articulation. In addition, they were joined by the new progeny of the knowledge intensive age, such as – again citing from the population of 110 LMEs in Chapter Six – Airtech Japan\* ([www.airtech.co.jp](http://www.airtech.co.jp)), the specialist manufacturer of clean air systems, and Roland\* ([www.roland.co.jp](http://www.roland.co.jp)), the maker of electronic keyboard musical instruments. Established and emerging LMEs were increasingly recognised by observers of the Japanese business scene as significant economic agents by the 1970s, although not necessarily labelled as LMEs by all observers.

#### **4.6.2 The Internationalisation Period (1980-1990)**

By the 1980s, Japan was indisputably ensconced as the second largest economy in the non-communist world. It was the paramount exporter of compact disc players, semiconductors, machine tools, fax machines and laptop computers, among others (Fingleton, 1995). The economy of Kanto - comprising Tokyo and the adjacent prefectures - alone outstripped Italy's and then Britain's, and the nation boasted ten of the world's top twenty electronics manufacturers (4) (Donnet, 1991). Apart from exports, right from the inception of Japan's modernisation in the nineteenth century, a degree of internationalisation has been indispensable to obtain raw materials. So, in the interests of stabilizing its burgeoning industrial base, by the start of the decade it had in place a formidable array of policies to ensure their provision, including the ownership of extraction operations and the advancing of foreign aid and other forms of financial help to supplier countries, not least in East Asia (Arase, 1995). By then also, the major Japanese firms and corporate groupings had honed the kernel of their ongoing success: the process of manufacturing. This was embodied in the organisation of people and machines with an emphasis on continuous change or improvement in their utilisation and larded by a highly competitive domestic environment (Chu, 1994; Lincoln, 1995). The expansionist mode also found expression in a tenfold increase in technology licensing exports over the decade, although admittedly from a low base and still less than half the value of technology imports (Lincoln, 1995:93).

However, illusions of mercantilist self-sufficiency were in retreat. The declining industries of textiles, basic materials and shipbuilding were shedding workers apace, as were the core processing sectors of steel and aluminium (Tilton, 1996; Uriu, 1996). Cartels were again in evidence, this time as the vehicles for coordinating the constraints on excess capacity for the likes of petrochemicals, synthetic fibers and chemical fertilizers. What is more, Japan's share of world exports peaked in 1986; indeed, its export share even in some of its most competitive industries such as televisions, audio equipment and cameras had been falling since the late 1970s

(Porter *et al*, 2000), although what this often meant was that Japanese transplants were providing the components and assembling the finished items abroad. A further element of tension straining the structure was the implementation during the 1980s of agreements limiting Japan's exports to the United States of automobiles, semiconductors and machine tools, which meant that by the end of the decade, with the addition of previously concluded pacts concerning cotton textiles, steel and colour televisions, over 30% of this bilateral trade was subject to 'voluntary restraint' orders (Calder, 1988). The trickle-down effect on smaller business concerns was serious and was countered by a substantial increase in subsidised loans and the resort to a wide range of policy tools to staunch unemployment and encourage diversification. However, such factual generalisation concerning the at least 95% of companies classified as SMEs in Japan threatens to cloud out the details. For at the dynamic end of the SME endeavour, firms were confronting change and realising greater independence at the same time. To illustrate from one source: between 1987 and 1990, the ratio of subcontractors dependent on a single customer for a minimum of 90% of their orders declined from 34.5% to 15.8% (Whittaker, 1997:34).

One major factor impelling this diversification of clientele domestically was the progressive geographical dispersal of major assemblers, first to the nation's hinterland and then abroad. Although Japan's firms of all sizes and kinds, in fact, had been making direct investments abroad for some time, up to the 1980s its economy was still export-based as far as the outside world was concerned (Zhao, 1995). A radical reorientation towards FDI and internationalisation strategy was about to commence. The appreciation of the yen, which was to become almost exponential in the second half of the decade following the Plaza Accord, was the chief underlying motivator. Western protectionist sentiment, encroaching NIE competition, high costs in Japan, more constructive host government policies, and – for intermediate subcontractors – the overseas demands of internationalising clients likewise contributed impetus. Conversely, of course, the higher yen strengthened Japanese corporate purchasing power abroad while the rising value of their physical

assets at home allowed them to borrow credit cheaply (Myers, 1996). From 1980 to 1991 the cumulative value of Japan's FDI grew at an average annual rate of 25% (Lincoln, 1993:70).

By 1986, moreover, some companies were already veritable globalisers: both Ajinomoto (food) and YKK (zips), for example, were by then manufacturing 70 – 80% of their products outside Japan (Ishii, 1992:46). They can be seen as the pioneers in strategy change which was beginning to take hold, whereby FDI was – for the larger firm at least – less and less a simple division-of-labour exercise for shifting labour-intensive production to cheap-wage countries, but rather increasingly a global positioning of production bases to better serve worldwide markets (Akabane, 1998). With the smaller firm also in mind, on the other hand, government policy evolved in step with the globalising trend, enlisting the Japan Small Business Corporation, JETRO and the Japan Chamber of Commerce, among others, as facilitators. For small firms, too, were negotiating tides of transformation. In 1974, Momoi Net ([www.momoi.co.jp](http://www.momoi.co.jp)), in a relatively simple move, transferred much of its labour-intensive production to Indonesia to fend off intensifying competition from South Korea and Taiwan (Ibuki, 1994:132). By 1989, however, when Nakajima Doko ([www.nakajimadoko.co.jp](http://www.nakajimadoko.co.jp)) arrived in Malaysia its motives were more 'globalised': having seen costs explode due to the rapidly appreciating yen, and having been unable to extend its factory space at home, it chose to employ by now relatively skilled labour in Malaysia to manufacture its soldered peripherals there, all for reexport to Japan (Ibuki, 1994:154).

Momoi Net and Nakajima Doko are two specialised and focused smaller LMEs. Moreover, the passage of time between their two investments suggests a growing sophistication in their articulation of options as globalisation progressed. In their committed specialisation, focused approach and articulation practices they bear a strong resemblance to their larger LME counterparts. With the domestic market as base, LMEs in general had raised their technological level, upgraded product quality and cut costs. But in sticking closely to their core competences, by the 1980s they

were outgrowing the home market, and rather than diversify product in Japan, they were increasingly looking abroad to diversify their clientele. In fact, as will be seen in Chapter Six, many had started internationalising well before, although this was much accelerated in the 1980s. The process is well illustrated by Fujitec\* ([www.fujitec.co.jp](http://www.fujitec.co.jp)), an LME headquartered in Osaka. Fujitec's 'first decision' was to make and install elevators, while logical progression later encompassed escalators and moving walkways. Hemmed in by the competition of larger companies in Japan, and rejecting the alternative of targeting other products outside its chosen niche for the local market, it opted early for internationalisation with the opening of its first overseas manufacturing and services plant in Hong Kong in 1964. By the end of the 1980s Fujitec boasted five more overseas manufacturing bases plus a number of designated sales outlets (Toyo Keizai, 2001). It was by then – like many other Japanese LMEs – articulating its strategic space in the globalising arena.

#### **4.6.3 The Economic Reform Period (1990-2000)**

By 1990, despite harbingers of disfunctioning accompanying the bursting of the 'bubble economy' of the end of the previous decade, Japan's economic structure wielded immense power and influence. From less than 3% in 1950, Japan now accounted for some 16% of the world's industrial production. Confidence was such that in 1993 it launched 'un défi intellectuel', championing its developmental structure over World Bank and IMF free-market orthodoxy (Servoise, 1995:227). It had oustripped the global opposition in watches, cameras and motorbikes, to name but a few. As for newer technologies, it manufactured 60% of the world's industrial robots, it appeared to be carving out a lucrative bonanza from fluidised bed combustion, solar photovoltaic cells and other areas of environmental technology, and no less than 75 of the cream of corporate Japan – including Ishikawajima-Harima, NEC and Toshiba – were involved in the establishment of Rocket Systems Inc. (Donnet, 1991:196). True, the outside world was impinging; inward direct investment flows amounted to US\$4.3 billion in 1991 as against a mere US\$299 million in 1980 (Lincoln, 1995:71), and Japan had become a net importer of



televisions, VCRs and refrigerators. But these imports were predominantly from Japanese affiliates, and even then, in the early 1990s overseas manufacturing activity only amounted to 7.4% of Japan's total output (as against 25.1% for the United States), and capital stock in its domestic industries continued to expand (Hatch and Yamamura, 1996:187). Nevertheless, cracks have appeared, partially as a result of external pressures due to globalisation and partially of Japan's own making. With respect to the latter, the educational system's overemphasis on production and electrical engineering has left Japan ill-equipped to meet new challenges in computer software and aeronautics, for example (Porter *et al.*, 2000). Even in electronics, there was overcapacity, overstaffing and flagging productivity in both production and research and development (Ernst, 1994). At the other end of the scale the palpable aging of the owners of small manufacturing firms was continuing unabated from the 1980s reflecting the dramatic decline in independent start-ups, which in turn bespoke the redoubtable cost of entry and the disinclination of the younger generation to become entrepreneurs (Nakamura, 1990; Seki, 1994; Whittaker, 1997).

However, the changing environment which meant discomfort for some has meant opportunity for others, and this has included the LME sector which has proved more than resilient in crisis. These have homed in on niche markets and built up their resources through the introduction of information technology, personnel training, and research and development. They have achieved greater independence as the inclination toward the pyramidal subcontracting structure has given way to less exclusive network arrangements. They have become innovators in their own right, functioning as partners rather than subordinates of their main customers. They have concentrated on their core areas of expertise and sought to apply this creatively. Nifco\* ([www.Nifco.co.jp](http://www.Nifco.co.jp)) makes plastic fasteners for a range of industrial uses; Dynax ([www.dxi.co.jp](http://www.dxi.co.jp)) manufactures friction materials and parts for automatic transmissions for many leading firms (NRI, 1992b:71). That is to say, the demands of reconstruction appear to have vindicated the approach of LMEs in that they essentially already embodied the leanness and devotion to core competence which

became the vogue among business commentators in the 1990s. They did not diversify willfully into totally unrelated areas like Nippon Steel did at the end of the 1980s into leisure products and biotechnology. Neither did they parley snowballing assets into real estate during the 'bubble' era. Moreover, some were demonstrably more efficient than their larger counterparts. While from 1989 to 1998 the three leading *general* electronics manufacturers, Hitachi, Toshiba and Mitsubishi Electric, averaged a paltry 0.9% return on sales, that for four leading *specialist* manufacturers, Nidec ([www.nidec.co.jp](http://www.nidec.co.jp)), Rohm ([www.rohm.co.jp](http://www.rohm.co.jp)), Murata Manufacturing and Futaba Denshi ([www.futaba.co.jp](http://www.futaba.co.jp)), was 6.4% (Porter *et al*, 2000:172).

To take Nidec, which specialises in the manufacture of precision motors, boasting the world's largest share in small motors for HDDs, CD-ROMs and other electronic products. Since 1980 it has been building a worldwide network; 95% of its manufacturing is done overseas by plants in the United States and East Asia. Moreover, having been founded in 1973, listed in 1988, and blessed with a fourfold growth in sales during the 1990s, it is very much a progeny of its times (JCH, 1999; Porter *et al*, 2000). By investing abroad for the first time in 1980, Nidec also illustrates another point central to this thesis: the internationalising progression over time of LMEs. The main reason for setting 1990 as the cut-off year for initial overseas investment by the sample LMEs in Chapter Six is so that a time perspective can be created to see how this progression has evolved not only within the period from the mid-1960s to 1990, but also thereafter to the present.

To sum up, over this second phase LMEs consolidated their position in the domestic economy because of the recognised need for specialisation in a period of 'shocks', and their ability to adapt to and embrace the more knowledge-intensive environment in which they were obliged to function. In addition, as with the larger companies, they also moved towards an international presence as a way of capitalising on their core competences and responding to less favourable conditions at home. They honed their underlying strategy of articulation, avoiding unrelated diversification and

speculation, and by keeping a focus on successfully building on core competences have consolidated their role in the economy under the more difficult conditions of the 1990s.

## **PROPOSITIONS**

### ***P4***

*Japan's keiretsu-dominated domestic industrial market structure, liberalising external market relations and certain aspects of industrial policy have been particularly favourable to the formation and evolution of LMEs, making them an increasingly significant part of the evolving industrial structure. They are distinguishable from the general SME, from which category most of them have originated, by their concentrated emphasis on their core competence and their ability to assume a leading position in their chosen line of business. This has placed them very favourably for extending their activities abroad, notably to the immediate region of East Asia.*



## **RESEARCH QUESTIONS**

### ***RQ4***

- (a) Why have Japanese manufacturers been particularly attracted to the East Asian region?*
- (b) How have Japanese LMEs contributed to regional economic and industrial integration?*
- (c) How has investment in the region assisted Japanese LMEs in their internationalisation strategies?*

## 4.7 Summary

The leitmotif pervading this chapter is that the circumstances under which the Japanese economy grew, especially during the postwar era, has been particularly conducive to the evolution of the LME. The progression of events has been separated into two phases: the first from 1945 to 1970, the second from 1970 to 2000. These phases have, in turn, been divided into three stages each. Japanese LMEs are distinguishable from other firms by their combination of size, type and stage. They have made their mark in Japan because of the particular business practices and ethos, especially as they have developed since the end of the Second World War, including outsourcing, patient capital, and cooperative in preference to adversarial relations. Their distinctive role is as leading specialists both for intermediary goods and for end-user products.

The first phase saw recovery under the Occupation, followed by reconstruction with regained independence, and then rapid growth felicitously aided by advancing internationalisation worldwide. It was during this phase that the first batch of manufacturing LMEs came to the fore. Their establishment as serious contenders in the national economy was stimulated by three factors:

- (i) The fast growing demands of large companies and company groups (*keiretsu*), which were not fully met in-house because of an increasing reliance on subcontractors and a disinclination to internalise due to business volatility; they provided demanding but helpful customers to SMEs that could develop the competences to become their long term suppliers.
- (ii) International pressure from global organisations and trading partners calling on Japan to open up its markets and liberalise its institutions, which did not allow Japanese firms to develop at their own chosen pace but rather to accelerate the drive to specialisation and competitiveness, characteristics definitive of the LME.

(iii) An approach to SMEs, which first ignored them, but then (crucially) veered to policies which favoured the prepared and the capable in the SME sector, providing the opportunity for many of them to become LMEs, before subsiding into amorphous protectionism for the less equipped at large.

These conditions encouraged the development of firms that were more than 'successful SMEs', in that they had the time, opportunity, resources and incentives to develop as 'LMEs', laying down the strategic philosophy of 'articulation' that subsequently proved definitive and useful.

The second phase opened with a series of 'shocks', which paradoxically proved to be one of the elements inducing further upgrading, notably through 'knowledge intensification'. This was a situation well suited to many existing LMEs, as well as being fertile ground for a new crop of them. Internationalisation became a natural extension of business, including for LMEs, while come the 1990s, reform of the economic structure became ever more pressing as the implications of globalisation began to impinge. With this state of affairs, specialisation and the LME took on added relevance both at home and abroad.

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### *Notes*

- (1) There was a big reshuffle of government ministries and agencies in 2001 in which the former Ministry of International Trade and Industry (MITI) was largely reconstituted with additions as the Ministry of Economy, Trade and Industry (METI). With respect to incidences involving the ministry before 2001, therefore, it is referred to as MITI in the subsequent text.
- (2) For a similar national economic structure (Germany) as it compares to the Anglo-Saxon setup see Lane (1992).
- (3) LMEs marked with an asterisk are among the 110 sample companies in Chapter Six which have invested in Taiwan.
- (4) Hitachi, Matsushita, Toshiba, NEC, Mitsubishi Electric, Fujitsu, Sony, Sharp, Sanyo, Canon.

## Chapter Five

### The East Asian Region and Host Country Taiwan

#### 5.1 Introduction

Globalisation, first putatively in the form of internationalisation and then in its own right, has evolved over the past three or four decades, which is precisely the period in which many of the Japanese LMEs described in the previous chapter have ventured abroad and established their presence in locations around the world. This thesis is aimed at gaining insights into the globalisation process by studying it through the perspective afforded by this particular type of firm, the LME. Hypothetically functioning as a catalyst precipitating the globalisation process and modulating the LME's course of action in its interplay with this process is the *region*. The globalisation of the (large) firm and the regionalisation of the firm within the context of globalisation differ in scope and depth from internationalisation. Dicken (1998:5) portrays *internationalisation* as entailing quantitative processes of geographical extension, as against *globalisation* where the processes are qualitatively different in that this extension is compounded by the functional integration of erstwhile discrete activities. Whereas internationalisation can be seen as an accumulation of atomised variables, globalisation is a progression of interlocking fusion with the world market viewed as a unit and governed by a global strategic vision. Given its scale constraints, the LME is deemed to be *internationalising* in a globalising environment, while interfacing with the region and its component locations, which themselves constitute a geographically defined matrix of 'sub-global processes' (Jessop, 1998:23).

So one way to gauge how and to what degree LMEs have internationalised is to look at the overseas environment immediately adjacent to their home base, while keeping in mind that this is just *one* means of looking at how the LME is internationalising in a globalising environment and that this is not an investigation of regionalism *per se*. There are three reasons for this approach. First, as mentioned above, the multinational region and regionalisation are seen to be intimately and symbiotically conjoined with globalisation. Second, as noted in Chapter Three, proximity and related theorising about

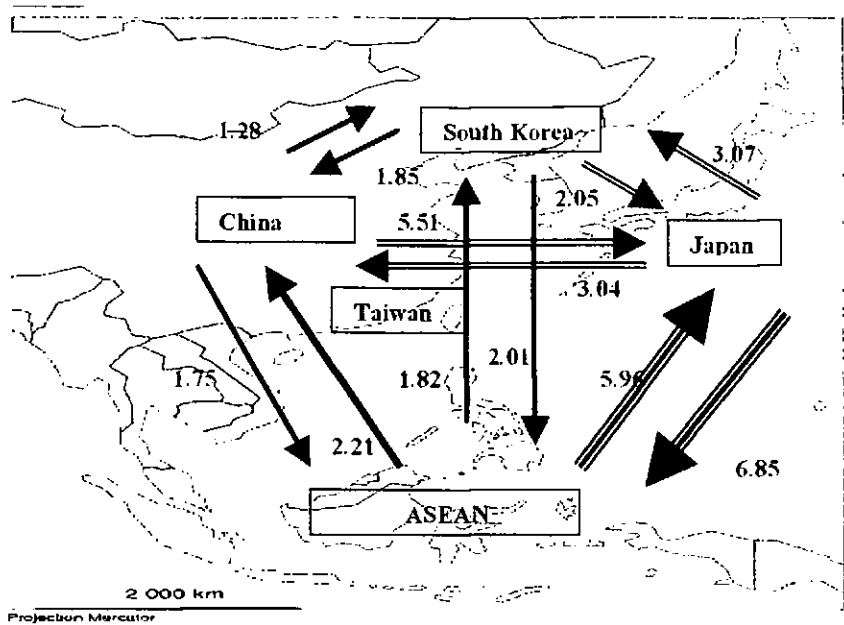
the role of knowledge acquisition and familiarity in decision-making, for example, are writ large in the discussion of the internationalisation of the firm, and particularly the smaller firm. Third, as alluded to in both Chapters Two and Three, the LME is self-consciously bounded in its options and therefore could arguably take the same incremental approach to internationalisation as it has done to its other business development, and incrementalism as realised through articulation could be nurtured by familiarity, which in turn is facilitated by proximity. The East Asian region can be said to present a vista of potential stretching virtually from Japan's doorstep, and it is with this in mind that its significance *vis-à-vis* Japan and the Japanese LME is elaborated upon below. At the same time, within that region and very close to Japan culturally, historically, geographically and technologically is Taiwan, which just because of these characteristics encapsulates in concentrated form conceivable motivating stimuli for internationalisation by the Japanese LME. Describing this background and having thus established a three-dimensional landscape comprising the world, the region and the host country in this chapter, it is intended in the following two chapters to reverse the lens and project outwards from host country, Taiwan, in tracing the internationalising course of the Japanese LME and the reciprocal impact of these key firms on the regional formation process.

## **Part I: The East Asian Region**

East Asia is highly diverse yet easily recognisable geographical entity. It is not a clump of uniformity to which agents are either associated or not. Rather, it synchronises compactness and tractability to a degree convenient for a study which is essentially economic and geographic. More prosaically, 'East Asia' is an idea and a reality readily understood by the businessmen and administrators who are the actors running the companies and institutions under discussion here. They see East Asia as an operational unit within their overall strategy, just as they see North America and Europe in like manner. Some idea of this unity can be gleaned from the map in Fig. 5.1 which also gives the trade flows within the region for the year 2000.



**Fig. 5.1 East Asia and its Trade Flows, 2000**



NB: Figures in US\$ trillion.

Source: Nihon Keizai Shinbun, November 6, 2002; accredited to JETRO.

## **5.2 Methodology Note 1**

### **5.2.1 Aims**

The intention here is to demonstrate how East Asia has developed as a region as internationalisation and globalisation have evolved around and within it. That having been done, it is possible to examine how Japanese firms, and specifically LMEs, function within this region as they internationalise, and at the same time contribute incidentally to the integration, indeed the functional definition, of the region.

### **5.2.2 Approach**

The position taken in this thesis is that regionalisation is intrinsic to globalisation. It is therefore necessary to analyse what the region implies, not only economically and geographically, but also historically, politically and culturally because these latter are also contextually relevant to the region's dynamic functioning. The region must then be placed within the world setting to see how it engages the global environment and works within it. This having been done, it becomes possible to turn the investigation to what

this means for Japanese LMEs and the way they act, and their distinctive contribution to regional integration. The approach again entails a literary review, coupled with supporting quantitative data. The literature includes, again, general materials in Japanese, English, Chinese and French, Japanese and Taiwanese official data, research institute data, the Japanese and Taiwanese economic newspapers and journals, and company websites.

## **5.3 East Asia as a Region**

### **5.3.1 Identification**

In this thesis the East Asian region is taken to mean East Asia in its broadest sense, incorporating what is alternatively referred to as East and Southeast Asia, or sometimes Northeast and Southeast Asia. That is to say, it includes China, Japan, North and South Korea, Taiwan and the countries of the Association of South East Asian Nations (ASEAN). Leaving aside North Korea, this equates to the ASEAN plus three (China, Japan and South Korea) grouping which is seeking to attain some kind of free trade association (FTA) format over the next decade or so (Nikkei, November 5, 2002).

To the present, however, East Asia has constituted neither a political nor an economic entity in its own right where integration is manifested by, for example, the progressive and systematized *de jure* removal of discriminatory barriers. Neither does it comprise a group of countries with similar socio-economic systems, nor even mutually recognised cultural references such as Christianity in Europe, for example. Demarcation lines in the form of economic frontiers still have to be crossed by goods and factors of production and – until very recently – there has been no apparent region-wide inclination towards emulation of the EU or even NAFTA. In other words, interconnection within East Asia as a whole is not highly politicised and there is no overarching policy body positively impelling coalescence and endowed with coercive powers to ensure its materialisation.

It is nevertheless subject to the interplay of integrating forces in two ways. First, its component countries are variously involved in international organisations at the sub- and supra-regional levels. ASEAN, now encompassing the majority of the Southeast, is representative of the former, and the Asia-Pacific Economic Cooperation conference (APEC) and the World Trade Organisation (WTO) of the latter. Second, there has taken

place a non-governmental *de facto* regionalisation of production realised through enterprise networks and fuelled by direct investment, notably from Japan, South Korea, Taiwan and the Chinese diaspora (Higgott, 1999). This in turn has stimulated a division of labour within a perceptible geographic region, a phenomenon traditionally equated with economic integration (Marer and Montias, 1988).

So there is in evidence an underswell urging forward the combining of previously discrete and dispersed economies into larger and more complex arrangements. And gradualist though this may be from a political standpoint, it is nonetheless in this environment that most of East Asia recorded remarkable growth rates for two to three decades. Despite the divergences among these countries there are threads of communality which are strengthening. Discriminatory and restrictive institutions are being levered aside by the logic and force of market imperatives and technological progress which increasingly spell disaster for those unwilling or hesitant about accommodating the emerging rules of engagement. Apparent in this is what is best described as a process of *selective integration*. In this scenario, while economic frontiers still remain, production, money and resources are comparatively fluid, commodities and services are becoming so, and labour is still relatively static, in that with direct investment work moves to them. Unilateralism and policy independence are thus being eroded rather than sundered by one-off conjunction. At the same time, perhaps because of its very lack of formality, there is no 'fortress' implication in this kind of regionalism. It is a centrifugal regionalism which feeds off globalisation as it manoeuvres of necessity to benefit from what the larger world has to offer. An important element in the drive for selective integration is the recent conduct of Japanese LMEs.

### **5.3.2 Recent History and Structure**

East Asia's constructive engagement with the world at large over the past four decades rests on historical foundations. Although, until very recent times it did not indulge in a *regional* division of labour akin to that already well advanced in Western Europe by the middle of the twentieth century (Rozman, 1991), commercialisation and specialisation had existed for centuries. This had been further stimulated during the colonial period to produce a legacy of 'outward links' – Malaysia with Britain, Indonesia with the Netherlands, the Philippines with the United States. And, indeed, with older colonies in

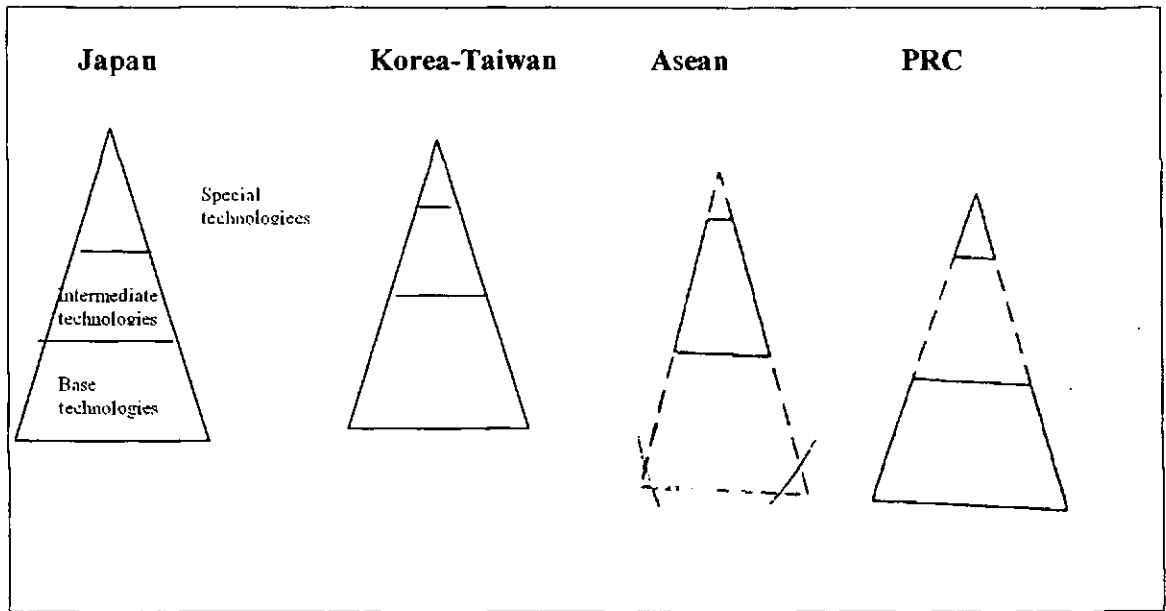
mind one could add the regionally 'inward links' that Japan maintained with Taiwan, where it had commercialised sugar and rice growing for its own larger strategic purposes. Moreover, the high speed of development, especially in the 1960s, was to a significant degree impelled by fortuitous circumstances which created opportunities for deeper integration into the world economy, summarised by Wade (1990:346) as favourable reception in the markets of advanced countries, much improved access to international finance, and increasing relocation of production by multinational enterprises to cheap-wage sites. The result was that between 1960 and 1990, what have been referred to as the high-performing Asian economies (HPAEs) – Japan, Hong Kong, South Korea, Singapore, Taiwan, Indonesia, Malaysia and Thailand – averaged annual per capita real income growth of 5.5%, and China 5.8% since 1965 (World Bank, 1993). These are the nine leading East Asian economies with which Japanese LMEs have been most involved over the past thirty to forty years.

There were two motors driving this boisterous advance: manufacturing exports and FDI. Between 1963 and 1995, the nine leading economies increased their share of world manufacturing exports from 7.5% to 31.5%. Discounting the paramount leader Japan, these figures read 1.5% and 19.9% (Dicken, 1998:34-36). Particularly salient regarding FDI was the mounting intraregional activity which can be divided into two distinct waves. The first, commencing in the late 1960s, saw Japan divest itself of much of its labour-intensive industries for relocation to the Asian NIEs as it restructured to take on capital- and technology-intensive industries. The second wave in the latter half of the 1980s was characterised by the Asian NIEs themselves partially emulating Japan's earlier move in transferring their labour-intensive industries chiefly to the ASEAN countries and China and upgrading their technology and productivity (World Bank, 1989; Kitamura, 1990; Yong and Keng, 1990; Regnier, 1991; Jin, 1995; Pussarungsri, 1998; Sum, 1999).

The impression drawn from the above is inevitably one of persistent and, crises notwithstanding, ultimately accelerating change throughout the region and in its global relationships. It would appear that "within the sphere of East Asia, nations cooperate with and stimulate one another, as if technology were being propelled outward by centrifugal forces" (Seki, 1994:3). Japan, once the undisputed pioneer, is being obliged to cede technological know-how as market pressures heighten and regional capabilities

blossom. We shall return to this later in discussing the specific role of Japanese LMEs as agents of technology transfer into Taiwan. Patterns of functional specialisation emerge: audio equipment in Taiwan and South Korea, electronic watches in Hong Kong, less sophisticated and lower value-added products in the Philippines and Thailand (Chen, 1990). But such gradations implicit in a regional division of labour also suggest lacunae in the individual East Asian countries; deficiencies in the region, to put it another way, render flexibility far from ubiquitous. The nub of the issue, with respect to four of these countries, has been given diagrammatic expression by Seki (1996) and is reproduced here. According to this representation, Japan is proficient at all technological levels. China, Taiwan and South Korea, on the other hand, show significant gaps or weaknesses. Taking an alternative perspective, however, these can also signify opportunities and are discussed in this light with regard to Japanese LME investment in Taiwan below.

**Fig. 5.2 Structure of Technology Accumulation in East Asia**



Source: Mitsuhiro Seki (1996).

N.B. 1. The height of each triangle shows the overall technological level, while the width indicates the density of technological accumulation. The dotted lines indicate particularly weak areas.

2. 'Base technologies' refer to casting, forging, plating, machining and other mechanics-related analogue technologies. 'Special technologies' are so-called advanced technologies related to such activities as the development of new products. 'Intermediate technologies', forming the link between the other two, include production technologies, assembly technologies and the like.

### 5.3.3 The Region as a Functioning Unit

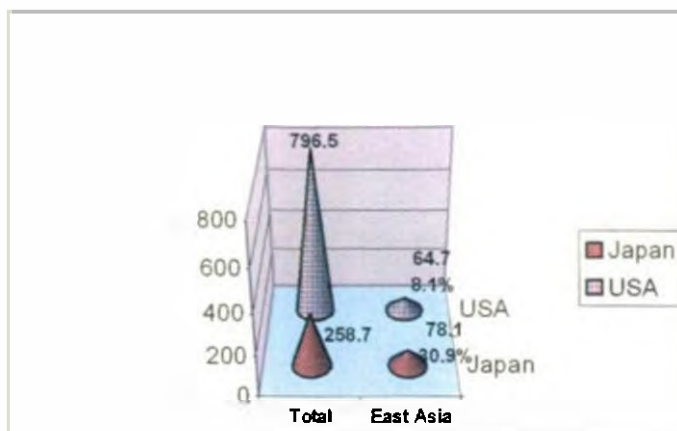
East Asia has therefore evolved in the past few decades as a distinctive economic entity. It has become a functioning megaregion in the Triad of the global economy, parallel with (but not identical to) the EU and NAFTA (Orru *et al*, 1997). Table 5.1 shows the leading investors external to the region, plus Japan by way of contrast, near the end of the period under discussion. Clearly the United States outperforms all other outsiders to the region while creditably keeping pace with Japan overall. On the other hand, Fig. 5.3 and Table 5.2 demonstrate that, whereas on a historical cost basis Japan's FDI assets worldwide are only about a third of those of the United States, they prevail in East Asia (JETRO, 1998). In fact, East Asia is the "dominant regional destination" (Yeung *et al*, 2001:11) for Japan's outward FDI. This is one aspect of the intensification of economic activity *within* the region even as it augments its participation in the global economy. Evidencing this, East Asian intraregional trade has taken on significant proportions since the mid-1980s, at which time it first surpassed the United States' trade to the region (Baran, Pan and Kaynak, 1996). Even with Japan excluded, trade among the other countries during the first half of the 1990s was rising much faster than with the rest of the world. Moreover, manufactured goods are assuming increasing importance. Japan's huge surplus with them notwithstanding, the remaining countries "on average now import more manufactures from each other than they do from Japan" (UNCTAD, 1996:90).

**Table 5.1 Inward FDI to East Asian Region (1996 inflow basis)**  
(Unit: US\$ millions)

Host/ Source	Japan	ROK	Taiwan	Singapore	Thailand	Malaysia	Philippines	Indonesia	China
USA	2,122	876	474	1,604	2,766	1,150	33	642	3,443
UK	360	79	36	282	583	151	142	3,391	1,301
Germany	423	95	38	175	322	59	3	165	518
France	93	90	20	42	173	5	1	71	424
Netherlands	713	205	29	367	918	29	5	1,330	125
Switzerland	222	162	12	43	104	750	0	160	188
Japan	-	255	545	1,390	6,191	1,831	56	7,655	3,679

Source: Figures extracted from 'JETRO White Paper on Foreign Direct Investment, 1998', Fig. 11, page 7.

**Fig. 5.3 General View of Assets Held by United States and Japan Worldwide and in East Asia (End of Fiscal 1996)**  
(Unit: US\$ millions)



Source: Figures extracted from 'JETRO White Paper on Foreign Direct Investment, 1998', Fig. 45, page 34.

**Table 5.2 FDI (Assets) by United States and Japan Worldwide and in East Asia (End of Fiscal 1996)**  
(Unit: US\$ millions)

Country/region	Japan	United States
Worldwide total	258.7	796.5
East Asia	78.1	64.7
China	8.1	2.9
Taiwan	4.0	4.5
ROK	3.5	5.5
Hong Kong	9.4	16.0
Singapore	11.4	14.2
Thailand	15.8	5.3
Indonesia	17.2	7.6
Malaysia	5.8	5.3
Philippines	2.9	3.4

Source: Figures extracted from 'JETRO White Paper on Foreign Direct Investment, 1998', Fig. 45, page 34.

Underpinning this cross-border manoeuvring has been FDI, which likewise is increasingly intraregional (Dicken and Yeung, 1999). And again, despite Japan's preeminence, it is worth noting the growing diversity of origin, because it is instructive in indicating the evolving environment which Japanese firms must continuously address even as they drive it. Put another way, East Asian intraregional FDI is no longer the virtually exclusive Japanese preserve that it was in the 1970s. Through most of the 1980s, in fact, intraregional FDI by the four Asian NIEs equated to in excess of two-thirds of that made by Japan, resulting in their being as a group the top investors in Indonesia and Malaysia, for example. Moreover, the potential for symbiosis suggested by Seki's (1996) diagram is apparent at differing levels of national development as illustrated by Taiwan and Malaysia (Chen, 1992; Chi, 1994; Chen *et al.*, 1995; Chen and Liu, 1998; Ku, 1998). As Taiwan's comparative advantage in labour-intensive industries, like metal processing and electronic appliances, became unsustainable many of these businesses relocated to Malaysia, but only because Malaysia was ready (Van Hoesel, 1996). 'The stage of development in Malaysia seems particularly suited to Taiwanese investors, who experienced a similar phase in their home country not too long ago. The fact that Malaysia is *not too far behind Taiwan in terms of economic development* thus provides a tremendous advantage for Malaysia over other host countries in the region' (Ariff and Ng, 1998:168; my italics). This is a case of what can be termed 'technological proximity', a phenomenon very relevant to the internationalisation of many Japanese LMEs within the East Asian and Taiwan especially.

#### **5.3.4 Japanese FDI and the East Asian Region**

The East Asian region, then, as a recognisable, even self-conscious functioning economic unit started to take palpable form in the 1980s. And statements above with respect to the other countries notwithstanding, the *first* country internal to the East Asian region to begin, through its manufacturing firms, to exploit the regional potential as a distinctive single entity was Japan (Suzuki, 1998; Tokunaga, 1992; Tachiki, 1995). This was an incremental development, but active from the outset in its evolution were Japanese LMEs. In fact, as early as the mid-1960s, when Japan was in the throes of its first overseas investment boom with its prominent textile and fiber firms very much in



evidence (Kojima, 1973; NRI, 1994; Wu, 1992), the first of the sample LMEs in this study were setting up in Taiwan. Their significance was to grow with the unfolding of the larger picture as it pertains to the advance of Japanese FDI globally and regionally.

The impetus for real take-off of Japan's FDI was provided by the series of measures implemented by the government from 1969 to June 1972 to liberalise almost completely the transfer of funds abroad for investment. The immediate response was a substantial increase through fiscal 1972, dubbed 'year one of FDI' (Hiramatsu, 1998:43). As a consequence, whereas total FDI between 1951 and 1971 amounted to a mere US\$3.6 billion, it ballooned to US\$5.8 billion in just the two years of 1972 and 1973 (Tsuru, 1993:193). Driving this high tide were the appreciation of the yen, rising wages and other costs undermining Japan's comparative advantage in given industries, and mounting dissatisfaction of the advanced industrial nations with respect to Japan's skyrocketing trade balance (Kojima, 1990; Tsuru, 1993; Myers, 1996). Essentially, these conditioning factors would remain unchanged thereafter. The 1980s constituted the peak period in Japanese foreign direct investment. Whereas during the 15 years from 1965 Japan's worldwide FDI amounted to US\$47.13 billion, in just five years from 1980 to 1985 it soared to US\$51.84 billion, and then more than doubled that to US\$106.4 billion in the latter half of the decade (Wong and Yamamura, 1996:1). A major factor here was the Plaza Accord in 1985 which had the effect of doubling the value of the yen against the dollar by 1987. As a consequence, in the three years from 1986 through 1988, Japan invested more overseas than in all the previous postwar years, and at its peak in 1990 Japan's FDI was ten times more than at the beginning of the 1980s. As for manufacturing, there was a six-fold increase in dollar terms during the key period of 1985 to 1989 (Lincoln, 1993:67).

From the mid-1960s through into the 1970s Japanese investment also progressed in diversification. Following textiles were radios, televisions and other home appliances and then automobiles (Ozawa, 1979a,b; Lu, 1995; Mason, 1996:20-2). East Asia was not overly favoured as against North America and Europe, but the cumulative affect was that by the first half of the 1980s Japan was the leading source of FDI in South Korea, Thailand, Malaysia and Indonesia, and second in Taiwan, Hong Kong, Singapore and the Philippines. Investment also accelerated during that decade to the point that in 1989, compared with 1985, Japanese companies invested four times more

in Taiwan, while the factors of increase were five for Malaysia and South Korea, six for Singapore, fifteen for Hong Kong, and a whopping twenty-five for Thailand (Fallows, 1994:264) (1). Accompanying this was an intensification of the Japanese presence as Japanese suppliers joined their clients by investing in the region. The smaller Japanese firms, LMEs among them, moved into Asia in record numbers in the 1980s; not only parts makers but also suppliers of raw materials and semiprocessed goods, contributing to the reformulation of hitherto Japanese domestic production networks towards a regional scale of operations.

This FDI process also evolved in character. What took place in the 1970s could be described as 'internationalising within the region'; it was not yet globalisation, but a step towards it. Even the large TNC still evinced patterns of investment which are best described as reactive and experimental rather than holistically conceived. But come the 1980s, within East Asia destinations for Japanese FDI were modified as the need for optimal strategic placement in the globalising economy became increasingly evident. In other words, whereas at the beginning of the decade Japanese firms had tended to perceive East Asia as clumps of discrete entities, by the end the emphasis was on recognising its comprehensiveness and its role within a global strategic vision (Ozawa, 1993). This evolution of investment resulted in a number of important consequences:

(1) It greatly assisted the transformation of the national economies concerned through technology transfer and *in situ* asset creation, which in turn further enhanced their appeal as investment venues. Malaysia, for example, having played host for the establishment of a television assembly plant by Matsushita in 1966, by the end of the 1970s had become one of the world's largest exporters of electronic components (Fong, 1992), albeit chiefly due to inward investment.

(2) As far as the Japanese investing companies were concerned, it reoriented and made more specific the roles of the host countries as patterns of plant product specialisation became more refined. Thailand, for instance, not only saw the proportion of total Japanese inward investments devoted to manufacturing rise sharply from the middle of the decade, but also the retargeting of investment from a local-market orientation to the development of that country as an export base for Japanese manufactures (Sakamoto, 1988; Encarnation, 1995; Kuroda, 1995; Santikarn Kaosa-ard, 1996).

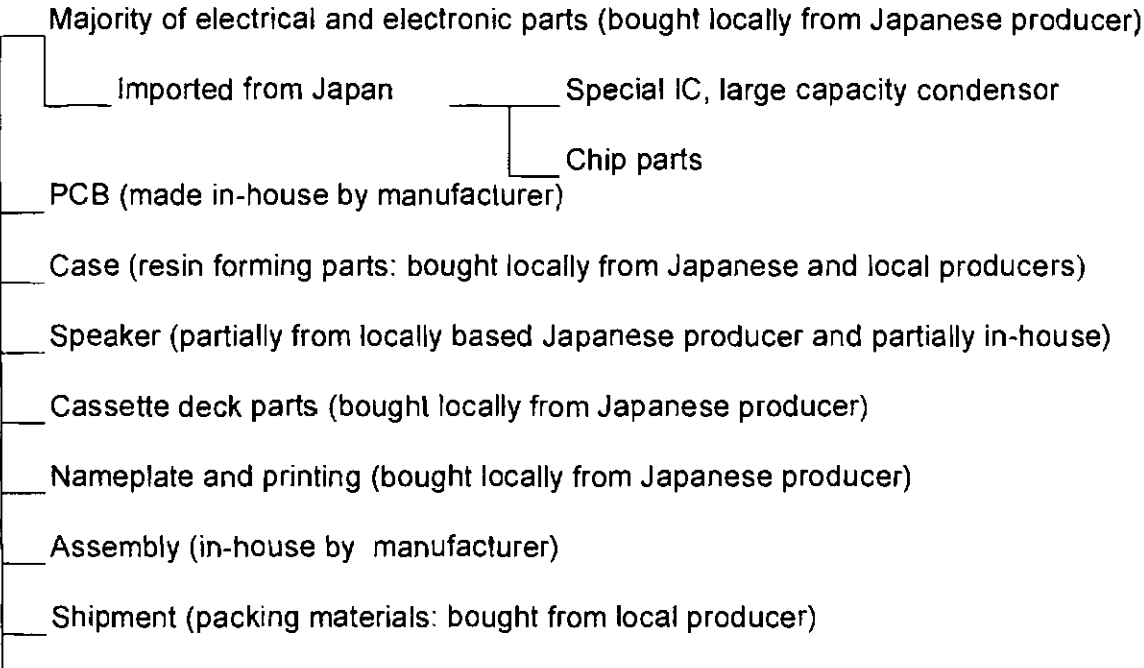
(3) Japanese firms began to become more critically aware of the distinctive and particular advantages offered by the individual countries within the region. By the end of the decade Taiwan and Singapore were benefiting from a new wave of Japanese investment incorporating advanced technology to exploit the accumulated skills and experience of these countries (Gereffi, 1996). What this represented was an *evolution in Japan's FDI* in East Asia from simple process division of labour to the transfer of increasingly sophisticated production technology to *selected* destinations (Jingji Ribao, 2001a,b), amounting to a more discriminating intraregional division of labour based on more nuanced corporate production systems.

(4) Japanese supplier-client constellations formed in given locations. This could be in concentrated form, as when medium-sized companies realised clusters of expertise in the more advanced hubs of Taiwan, South Korea and Singapore (Yonekura, 1988) (2). But more often they entailed assemblers and complementary parts makers. An illustrative example of what was happening was provided by Japan's Machine Promotion Association and is reproduced in Fig. 5.4. It can be seen that the hypothetical Japanese audio equipment producer profiled imports the high-tech elements from Japan, makes some of the components locally, and effects the final assembly in-house. It also buys the packing materials and some parts from local East Asian suppliers. Very significant, however, is that it relies partially or wholly on other locally-based Japanese firms for the case, the speaker, the cassette deck parts, and the nameplate. LMEs are prominent manufacturers of this kind of equipment. Dobson (1993) discerned exactly the same pattern in a study of the buying practices of Japanese electronics multinationals, where in one case 20% of components were imported from Japan and 70% of the 'local' input was supplied by Japanese companies. Such Japanese intermediate goods suppliers, she found, were becoming increasingly independent and more sophisticated, while, because of their familiarity, ensuring lower transaction costs for the assemblers than local suppliers (Dobson, 1993: 57, 69). This increasing independence accompanying internationalisation has been one means by which LMEs reinforced their self-definition, allowing them to develop an autonomous path to internationalisation.

(5) By the mid-1980s the East Asian region was acquiring the status of a production base in a global setting for Japanese firms. At around the advent of the 1990s, some

65% of Japan's investments worldwide were accounted for by services and real estate (Myers, 1996:xv). But as Table 5.3 reveals, from the early 1950s into the 1990s, some 45% of its cumulative investment in Asia was in manufacturing, prominent among which are textiles, electrical machinery, metals and chemicals. What is more, the manufacturing bias is further emphasised within the region, a fact revealed by comparing the manufacturing sub-totals with the figures for non-manufacturing. Hong Kong is seen to be predominantly non-manufacturing, while China and Taiwan have more manufacturing assets than non-manufacturing, in the latter case to a ratio of 2.6 to 1. The removal of Singapore from the ASEAN figures would raise manufacturing assets above non-manufacturing assets for the remaining countries too.

**Fig. 5.4 Typical Japanese Audio Equipment Production in East Asia:  
Production and Sourcing**



Source: Machine Promotion Association (1993).

**Table 5.3 Industrial Composition of Japan's Cumulative FDI in Asia, 1951-1994**  
Unit: US\$ billion

	Asia	ASEAN	China	Hong Kong	Korea	Taiwan
Manufacturing						
Food	1.77	1.13	0.35	0.10	0.10	0.10
Textiles	3.10	1.71	0.80	1.17	0.21	0.08
Timber & Pulp	0.75	0.62	0.06	0.01	0.01	0.03
Chemicals	5.61	4.27	0.27	0.04	0.50	0.34
Metals	4.14	3.06	0.32	0.07	0.19	0.41
Machinery	2.94	1.72	0.55	0.18	0.22	0.24
Electrical M.	7.84	4.53	1.39	0.44	0.58	0.76
Transport M.	2.72	1.50	0.35	0.04	0.34	0.30
Other	4.60	2.54	0.81	0.30	0.23	0.45
Sub-total	33.53	21.11	4.90	1.40	2.41	2.74
Non-Mfg	41.20	21.46	3.50	12.31	2.49	1.07
Total	74.73	42.57	8.40	13.71	4.90	3.81

Source: Ministry of Finance Monthly Statistics, December, 1995

NB: M = Machinery

## 5.4 Japanese LMEs in East Asia

### 5.4.1 The LME Perspective

Looked at from the broad perspective, therefore, Japanese firms have been highly influential in advancing the regionalisation of production in East Asia through direct investment, the subsequent organisation and reorganisation of production networks across the region, and decisions on sourcing and marketing. As this has evolved since the 1960s, moreover, the production networks thereby constituted have over time reached a point where they are not exclusivist and inward-oriented but increasingly directed outward to the *global* economy. In fact, it is the claim of Hatch and Yamamura (1996) that, since the 1980s, the dominant impetus propelling FDI does not stem from home or host government policy but rather from the firm's own need to accommodate the global marketplace. The emphasis here can be disputed to some extent, and the significance of government actions on inward FDI is discussed as it pertains to Taiwan in Part II of this chapter, but it goes without saying that the firm's own perspective is important. Added to which, the argument here is that East Asia, because of the level and characteristics of its economic development overall, has presented possibilities which Japanese LMEs, with *their* particular attributes have been able to incorporate into their articulation strategies as they internationalise. The opportunity factor created by shortcomings in the host economy has already been mentioned and is further elaborated here with reference to LMEs. Dovetailing with this is the way the home country and

host region circumstances, both positive and negative, can invite synergies whereby the two complement each other, as when the LME's superior technology constitutes the indispensable input in a host country manufacturing venture, for example. Finally, the Japanese LME can ostensibly posit the East Asian region in its strategy as an arena within which to manoeuvre and/or as a launchpad for extending to the world beyond.

#### **5.4.2 East Asia as Opportunity**

As already noted, according to Seki's (1996) diagrammatic reconstruction, Japan has strength and depth at all technological levels, an attribute that none of the others can claim. For their shortcomings East Asian nations were in the past branded as "paper tigers" by Krugman (1994), while less dismissively, although more realistically perhaps, Yoshihara (1988) referred to the regime in Southeast Asia as "ersatz capitalism" or "technologyless industrialisation". Indeed, the very ease with which special technologies can be transferred has, according to Morris-Suzuki (1992), disinclined ASEAN countries from acquiring the knowledge and skills needed for 'depacking' these technologies, while they remain overly dependent on investing foreign subcontractors for base technologies. However, *these are precisely the gaps that Japanese LMEs have been so instrumental in filling*, and represent one of the distinctive ways the Japanese LMEs are contributing to regional integration (via technology transfer) within the bigger picture of globalisation. It also allows them scope in intrafirm division of labour; machine tool makers like Yamazaki Mazak ([www.mazak.co.jp](http://www.mazak.co.jp)) and Tsugami ([www.tsugami.co.jp](http://www.tsugami.co.jp)), for example, are illustrative of technological hierarchy in action by outsourcing the production of simpler models to China and thereby making their contribution to intraregional trade, while benefiting themselves from cheaper production costs (Ozawa, 1985; Seki, 1994:22-3; Inagaki, 1994; Taylor, 1996).

To an extent this is so for even the most successful of the East Asian countries outside Japan – South Korea and Taiwan. Government obsession with the mighty *chaebol* at the expense of smaller supplier firms in Korea has resulted in seeming perennial dependence on Japanese precision parts and machinery (Kaneko, 1998). There again, with respect to both countries, the lack of depth in special technologies oblige South Korea and Taiwan to be heavily reliant on Japan, especially, for state-of-the-art input.

Even as late as the early 1990s, Japan (often through the medium of Japanese LMEs) was providing the high-technology parts and components that account for 20-30% of the value of South Korea's automobiles and 65% for its printers, while also being the partner in two thirds of Taiwan's technology cooperation agreements (Hatch and Yamamura, 1996:179).

Extrapolating on a broader front concerning East Asia as a whole, being deficient in the skills of the developmentalist approach defined as "a set of policies and practices that promote cooperation between government and business, between otherwise unrelated firms, and between management and labour" by Hatch and Yamamura (1996:xiii), their business operations fall short on "dynamic technological efficiency", meaning "a firm's ability to adopt successively more sophisticated technology" (Hatch and Yamamura, 1996:xii). In that sense Seki's (1996) dotted lines present areas of vulnerability to the stronger economy, allowing for 'peripheral intermediation'. Or, to put it in the terms of this thesis, the environment has not been created within many East Asian national economies (outside Japan) whereby strong technological and business linkages have been created to bind the economic structure together, a role frequently and demonstrably performed by LMEs in Japan, and which they have subsequently played to an extent in other nations in East Asia, where both industrial policy and local business practices have left a gap.

### **5.4.3 Complementarity**

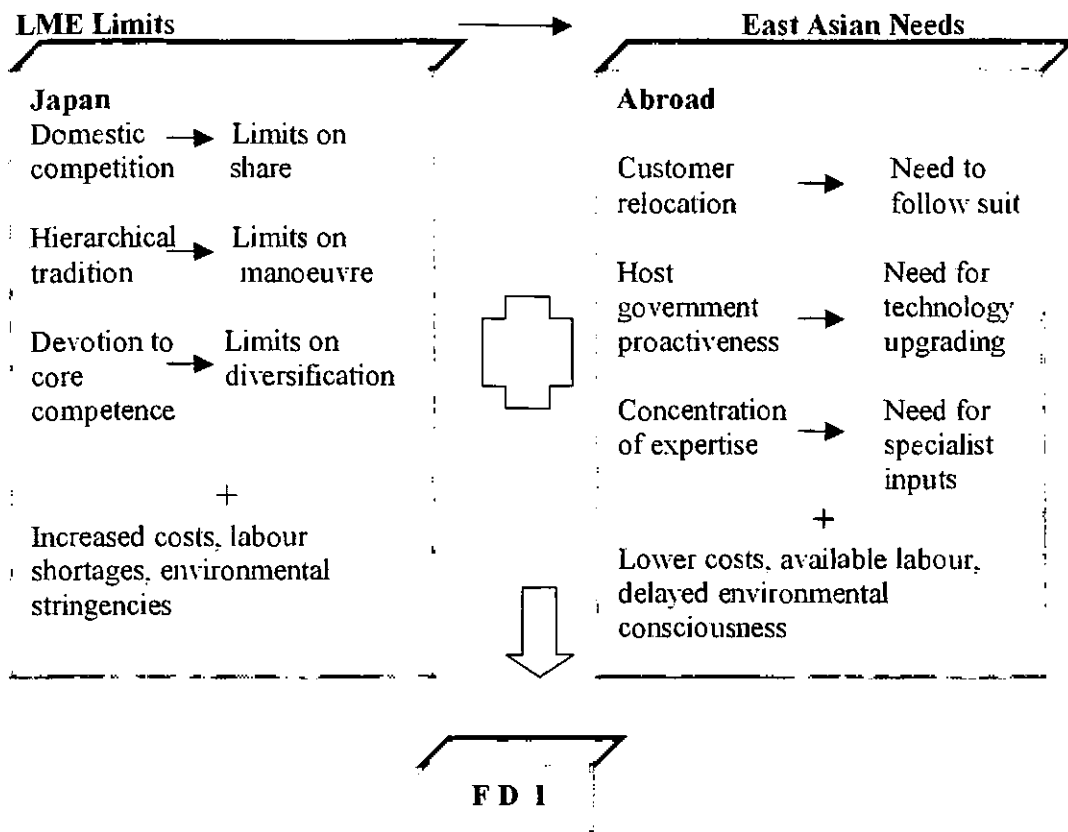
Not all of the reasons for LMEs extending their activities into the East Asian region have been of their own making however. Changing circumstances, both inconveniencing and inviting, have instigated outcomes. Some of the 'push' factors impelling Japanese LMEs abroad have been suggested and they are summarised as the 'LME Limits' in Fig. 5.5. Market share in Japan is often rigidly sustained and, for LMEs, may be hemmed in by powerful rivals higher up the hierarchy. Competition and imposition apart, LMEs have self-imposed limits on their manoeuvre because of their specialisation. Then there are the problems of all Japanese companies on the domestic front: prohibitive costs, a declining and aging workforce, and strict environmental regulations. In Fig. 5.5, these are married to the 'pull' factors connoted here as 'East Asian Needs', or to be more precise, needs which have arisen in East Asian countries.

As their economies and potential have grown, large Japanese assemblers have moved in and subsequently called out their regular suppliers, while host governments have sought to make up local structural deficiencies, and enticing hubs of competence have developed. Added to which is to be found the mirror image of Japan in terms of lower costs, readily available labour, and less stringent legislation concerning the environment.

As already remarked, the initial lack of home development of necessary technologies in the other East Asian countries can be said to be due to a lack of *linkage* between actors in their economies. If looked at from a positive stance on the other hand, foreign incursion in the guise of FDI can be regarded as the means for making good the paucity of linkages in the host economy, that is, creating the high level of internal linkage that is a hallmark of an advanced industrial economy. So that, with Aoki (1992), we can consider the rush of Japanese investment into Malaysia at the end of the 1980s as contributing positively to economic development and wealth creation/retention by effecting such linkages, as well as cultivating human resources, facilitating technology transfer, and spurring the relaxation of regulations. As highly geared specialists, *one of the major contributions that Japanese LMEs have made to regionalisation within East Asia has been as the agents of linkage, both within and between the member countries.* They have thus contributed to the 'deepening' of the industrial structure of the countries they have invested in, which in turn has opened up more opportunities for them (Wade, 1990). In this mutually reactive process, moreover, East Asian countries have over time begun to require increasingly sophisticated inputs for domestic industry *which in many cases they were not in the position – initially at least – to provide for themselves.* Thus, apart from responding to pressure from regionalising large Japanese client companies, many Japanese LMEs internationalised for the first time during the 1970s to supply the growing needs of East Asian businesses across the region and have remained there since as contributors to and beneficiaries of the evolving (local) economic environment (Kobayashi, 1995).



**Fig. 5.5 LME Limits and East Asian Needs**



#### **5.4.4 Positioning and Manoeuvre**

From its own standpoint, strategy for the Japanese LME in the East Asian region can be adumbrated under the themes of positioning and manoeuvre. It both functions within it and in many cases extends beyond it. Some of the articulation configurations thus created are epitomised in the examples below, all being companies which have achieved global reach beyond the region to varying degrees.

*Simple positioning in the region.* S.T. Chemical\* ([www.st-c.co.jp](http://www.st-c.co.jp)), producer of mothballs, aromatics and household-use resin gloves, after first investing in Taiwan in 1988, has so far restricted its manufacturing to East Asia, adding Thailand and the Philippines thereafter, to service its overseas clientele. Inexpensive manufacturing

locations close at hand would appear to be a sufficient basis for an international strategy.

*Strategic plotting within the region.* More complex, although essentially of the same pattern, is that of Mabuchi Motor\*, one of the five case studies in Chapter Seven. With its factories and R&D facilities in Taiwan, China and Vietnam, it is a stark manifestation of a co-ordinated regional manufacturing network, contrived to service a global market strategy.

*Selective use of the region over time.* Fishing tackle maker Daiwa Seiko\* ([www.daiwaseiko.co.jp](http://www.daiwaseiko.co.jp)), invested first for cheaper production in Taiwan in 1971. This helped to create sufficient demand to justify investment in Scotland for the European market in 1977. Thereafter it resorted back to East Asia – Thailand in this case – in 1995 as the need for low costs for its international operations became paramount and as the optimum location for such operations reverted back to East Asia.

*Evolving global strategy emanating from the region.* Minebea ([www.minebea.co.jp](http://www.minebea.co.jp)), as shown in Fig. 5.6, showed initial and sustained concentration in East Asia, which eventually functioned as a springboard for advances further afield. That is to say, an early start was made in Singapore, and three other plants were already established in the region before like investments were made in the United States and Europe in the mid-1980s, in a pattern of progressive decentralisation of production into key markets.

*Withdrawal and repositioning within the region.* Uniden ([www.uniden.co.jp](http://www.uniden.co.jp)), the telecommunications LME, and admittedly a wild-west maverick by Japanese standards, having moved all manufacturing out of Japan to Taiwan in the 1980s, repeated the process in the 1990s with another total transfer of operations to China and the Philippines. As with Uniden and their larger counterparts, LMEs have, according to a survey by Nomura Research Institute in 1995, for example, revealed a persistently growing preference for China among medium-sized enterprises (NRI, 1995:39). But even China does not necessarily prove to be the final denouement. Illustrative of this is Tokyo Ferrite ([www.tokvoferrite-ho.co.jp](http://www.tokvoferrite-ho.co.jp)), a manufacturer of electrical machinery, which vacated Taiwan and moved via Hong Kong into China, only to relocate some of its operations in Malaysia out of dissatisfaction with the latter (Japan Small Business Corporation, 1998). What these withdrawing companies are doing draws attention to a

phenomenon which somewhat paradoxically accentuates the progressive cohesiveness of the East Asian region: movement and realignment within it. As the region becomes economically and functionally more integrated, as well as politically more stable around a sense of common interest, it is easier for firms to become more footloose within it, as they become more confident about legal considerations, labour supply, sourcing and so on within the region. Both Uniden and Tokyo Ferrite, be it noted moreover, initially withdrew from Taiwan where, like many other LMEs, they made their initial manufacturing investment abroad. It is to a discussion of Taiwan's particular constitution as a host nation for Japanese FDI that we now turn.

**Fig. 5.6 Worldwide Investments by Minebea, circa 1990**

Host Country	Local Company Name	Year Established	Investment Ratio (%)	Products
Asia				
Taiwan	Taiwan Mibeia Dianzi	1980	100	Electronic audio equipment, small motors
Singapore	NMB Singapore	1972	100	Miniature bearings, electronic equipment, machine parts, etc.
Singapore	Pelmec Industries	1980	100	Small bearings
Singapore	NMB Precision Tool & Die	1985	100	Tools, molds
Singapore	Actus Singapore	1984	100	Distribution centre
Thailand	NMB Thai	1980	100	Miniature bearings pressed parts
Thailand	Pelmec Thai	1984	100	Small bearings
Thailand	Minebea Thai	1984	100	Precision motors, keyboards, speakers, machine parts, etc.
Thailand	Thai Ferrite	1987	48	Ferrite magnets
Thailand	Minebea Electronics	1988	55.24	FDD magnetic heads
N. America				
United States	New Hampshire Ball Bearings	1985	100	Miniature bearings, etc.
United States	IMC Magnetics	1984	100	Small motors, control devices
Europe				
England	Rosc Bearings	1988	100	Special aircraft bearings
England	AK Fans	1988	100	Computer fans

Source: Ishii (1992), p. 165

## PROPOSITIONS

### P5

*Regionalisation is an essential component of globalisation. Especially for smaller firms like LMEs, it presents proximity and an intermediary scale which facilitate their process of internationalisation. The evolution of the region, 'East Asia', within this overall process of globalisation has been strongly influenced by the activities of internationalising Japanese TNCs and LMEs. In addition to being contributors to regional growth and integration, the LMEs have at the same time taken advantage of proximity and intermediary scale to advance their own programs of internationalisation.*



## RESEARCH QUESTIONS

### RQ5

- (a) What are the distinctive features of Taiwan's development, and how did it prove appealing to outside investors?*
- (b) What particular facets of the Taiwanese economy – both positive and negative – encourage Japanese LMEs to invest there?*
- (c) How have Japanese LMEs contributed to Taiwan's economic development and, through that, linked up regionally and globally?*

## **Part II: Taiwan as Host Country**

Over a thousand Japanese companies are currently registered as operating in Taiwan and hundreds more have been and gone. To invest in such large numbers implies a business appeal based on a perception of local comparative advantage. It is therefore pertinent to study the host environment, both natural and contrived, to better comprehend investment motives of Japanese firms, including LMEs. In addition to its proximity to Japan in ways this concept is familiarly applied – geographical, cultural, historical – Taiwan, along with South Korea, embodied the second wave of industrialisation and modernisation in the East Asian region and therefore can be said to have, on top of that, a degree of technological proximity to Japan. As such, Taiwan can be regarded as the epitome of the theoretical logic, the *epicentre* of proximity. So the question to pose is: Did this hold out a distinctive appeal for Japanese LMEs in their overseas strategising? Or, phrased another way: How and to what extent did Japanese LMEs take advantage of the situation presented by Taiwan in their internationalisation process? A subsidiary question is: what distinctive contributions have Japanese LMEs subsequently made to the industrial evolution and upgrading of the Taiwanese economy? The first step towards providing answers to these questions is to see what exactly Taiwan had achieved and where it stood as Japanese LMEs moved in as investors.

### **5.5 Methodology Note 2**

The main official data sources for the latter part of this chapter are Taiwan's Ministry of Economic Affairs (MOEA) and its SME department, the China External Trade Development Council (CETRA) and the Council of Economic Planning and Development (CEPD). The information from MOEA is mainly from its Industrial Development & Investment Centre. However, there is also the Investment Commission, which on request provides printouts of inward investing companies, but using the company's Chinese (Taiwanese) rather than Japanese names which makes them difficult to trace. (The problem of names is discussed in more detail in Chapter Six). MOEA's SME department publishes an annual white paper, but this is exclusively concerned with the activities of Taiwanese SMEs and does not go into any detail about foreign companies active in Taiwan. Moreover, Taiwan's unique situation can also

affect information sourcing in another way. To take JETRO to illustrate this point, since 1974 it has published an annual report on worldwide investment activities of Japan and other nations. Until the early 1990s Taiwan simply did not exist in these reports. Only in 1992, presumably on the grounds that Taiwan's own burgeoning and by then irrefutable investments in the Mainland economy made recognition permissible, did its activities appear. Navigating these definitional pitfalls and data gaps requires care in both the compilation and interpretation of the statistics, which has duly been exercised.

With respect to Taiwan's inward FDI, the data are based on approvals rather than arrivals. Schive (1990) has indicated that during the 1950s, for example, inasmuch as arrived capital only amounted to 45% of approvals, the data for the latter hardly typified the actual situation. There are two reasons for this. First, the data for approvals indicate the total capital committed. However, paid-up capital was allowed to arrive any time within three years of approval, so there was always a time lag between the approval and arrival figures. Second, many approved investment plans in the event never transpired, or at best were deferred and curtailed in magnitude (Schive, 1990:10). Nevertheless, having made that statement, the same writer is reduced to relying almost exclusively on data for approvals thereafter (cf. Schive, 1990:13). Data on arrivals are available but they are disparate, relying as they do on individual surveys on an inconsistent basis. Data on approvals, on the other hand, are consistent in the sense that they are officially registered and stay on the record as such. Over a period of decades, moreover, they remain a reliable indication of trends. In addition, in the case of a country like Taiwan, which at crucial stages has developed at an exponential pace and manifestly transformed its structure to accommodate a rapidly changing environment, these data present an architecture whose characteristic shape cannot be denied even if the size must needs be diminished the better to correlate with reality. Clearly substantiating this point in the data below are the massive build-up in the investment commitments in electronic and electric appliances in the 1980s and through the 1990s and, even more dramatically, the eruption of investment in banking and insurance in the 1990s.

## **5.6 The Character and Development of a Host Country**

At the advent of the 1950s, Taiwan was a poor agricultural economy recently emerged from Japanese colonialism, civil war, and subjugation by a retreating Nationalist

government and mainland fellow travellers. Just 40 years later it was the world's fourteenth largest trading nation, a major manufacturer of semiconductors, and the possessor of a foreign exchange reserve cache second only to Japan (although shortly to be overtaken by Mainland China). Inward foreign direct investment had a significant role to play in this miraculous transformation. This investment in turn was attracted by what Taiwan had to offer.

From the era of rehabilitation in the 1950s, the economy was to pass to export orientation in the 1960s, and then on to industrial upgrading from around 1973. It is postulated here that Taiwan's post-war economic history has gone through two main phases almost identical timewise to those of Japan described in Chapter Four, although for different reasons. The most important of these reasons was the progressive political isolation of Taiwan commencing in the early 1970s. The first phase (1945-1972) covers the country's rehabilitation and the transformation from import substitution to exporting as the motor for survival and economic advancement. The second phase (1973-1990) entails the 'Taiwanisation' of the economy and rapid growth through the 1970s and 1980s. There are widely differing interpretations of how exactly industrial and economic expansion in general was achieved, particularly during the first phase. Some ascribe a paramount role to government planners and institutions along with the state-owned enterprises (cf. Gold 1986, Amsden, 1989, 1991; Aberbach *et al.*, 1994; Liu, 1999; Asamoto and Liu, 2001), while others intimate that propaganda-influenced analyses have undervalued the significance of private-sector small business and that the political denouement was a crucial factor shaping economic outcomes (cf. Gates, 1996; Ishida, 1999). The account of the first phase here, therefore, separates these two perspectives. However, this dual approach is not sustained for the second phase because by then the political and economic landscapes are beginning to merge.

In a sense, given that this thesis is concerned with how Japanese LMEs availed themselves of local attributes they deemed to be instrumental for their own internationalising purposes, how Taiwan arrived at a point where it could be of use would seem to be of secondary importance. However, as will be shown, the circumstances and demands of Taiwan's distinctive passage to and elaboration of its industrialising economy presented needs which Japanese LMEs, among others, have been particularly well placed to complement.

### **5.6.1 First Phase from 1945 to Start of 1970s: The Economic Account**

Throughout Taiwan's modern economic history it has been beholden to inputs emanating from Japan and the United States. With respect to Japan, this started with its occupation of Taiwan during the colonial period from 1895 to 1945. The Japanese administration created an infrastructure comprising railways, roads, communications, health care and public utilities, and also implemented agricultural improvements. In addition it laid the foundation for a national education system, with the result that at the end of Japan's tenure in 1945 the elementary school attendance rate was over 70% (Ishida, 1999).

The presence of the Nationalists on the island posing as the legitimate government of China and the perceived need to contain communism in the emerging cold war environment induced America's first major contribution: economic and military aid supervised through the Council on United States Aid (CUSA) which came into existence in 1948. This was to last thereafter until its curtailment in 1965, with the economic part mainly invested in state operated enterprises engaged in power supply, fertilisers, transportation and sugar refining. These enterprises were in fact made up of firms requisitioned from the Japanese upon their departure and reconstituted as state monopolies.

Apart from American aid, agriculture was the initial stimulant for economic take-off. Reform instigated by the government redistributed land to the active tenant farmers. This had the dual effect of encouraging agricultural productivity while making a large section of the population extending across the island nation relatively positively disposed to government policy (Noble, 1998). The substantial increase in agricultural production attendant upon the reform together with advances in technology resulted in a capacity to satisfy domestic food demand at an early stage and to divert the surplus for export (Liu, 1999). This process yielded the means by which the economy could shift from primary to secondary industries; it realised the wherewithal to invest in industry and the foreign currency to import the essential materials and machinery.

There were two interweaving elements at work in Taiwan's economic policy-making of the 1950s. The first was the state capitalism practised by the Nationalist Party ostensibly



in adherence to the thinking of Sun Yat-sen, its original founder and leader at the beginning of the twentieth century. He was wary of the effects of private concentration of capital, and therefore advocated a mixed economy which was to include state-run monopolies purportedly beyond the financial and technological means of the private sector (Silin, 1976; Fields, 1995). Hence the protection and assistance afforded to them. The second was the dedication of economic technocrats freshly returned from sojourns at American universities. In a state-orchestrated development process, it was they who selected the 'take-off industries', including textiles, oil and fertilisers, which were to project the economy as a whole on the road to development. These technocrats built the enabling structure for industrial planning. Early in the decade they inaugurated the Economic Stabilisation Board (ESB) whose remit included trade and agricultural policy, and, within its jurisdiction, the Industrial Development Commission (IDC) responsible for economic planning (Gold, 1986). In addition, right from the start in the early 1950s, they prioritised industrial technology. At their instigation, the government promulgated the 'National Guidelines for Long Range Scientific Development', in tandem with which it inaugurated the Council on Long Range Scientific Development (later renamed the National Science Council) which has since then published a series of National Science and Technology Development plans (Wade, 1990:98).

During the 1950s, much of this planning was with the aim of shoring up a vulnerable economy, the solution to which was seen as import substitution. With the impending withdrawal of American aid in the early 1960s, however, big changes were afoot with respect to both the scope of planning and the orientation of the economy. CUSA, having been inherited from the Americans, was reorganised as the Council for International Economic Cooperation and Development (CIEDC) endowed with a broad range of authority over the design, coordination and evaluation of all economic policies (Fields, 1995). As for orientation, export promotion rather than import substitution was now the watchword. One pivotal initiative for emphasising this orientation was the Statute for the Establishment and Management of Export Processing Zones promulgated in 1965 (Gold, 1986), the first such export processing zone (EPZ) being opened in Kaohsiung in 1966. EPZs were especially significant because they favoured foreign capital investment, offering duty-free importation of intermediate goods, superior infrastructural facilities, and simplified administrative procedures (Gamblin, 1992;

Yamauchi, 1998). In actual fact, though, Taiwan quickly established its appeal in a general sense, for many export-driven foreign affiliates also started to set up outside the EPZs (Scott, 1979). On these the government exerted pressure to forge as many linkages as possible with domestic firms, including conforming to local content requirements and entering into subcontracting relationships (Amsden, 1991). At the same time, August 1962 saw the passing of a 'technology collaboration ordinance', which laid down the stipulations for technology licensing. In this way both the carrot and the stick were applied to induce foreign capital to play its part in opening up and upgrading the economy.

Hence, technological change contributed substantially to Taiwan's economic growth and much of this technological upgrading had its roots in FDI (Schive, 1990; Wang, 1994). With the about-turn to export orientation in the early 1960s, FDI came to be construed in a very different light. Instead of being an adjunct to protectionism, FDI was to become a springboard for export expansion, and foreign firms willing to conform to this role were sought. In fact, 1964 can be seen as the turning point, for whereas Taiwan attracted less than US\$100 million in FDI during the previous thirteen years (Gold, 1988), it saw nearly a fivefold increase to US\$466 million in the following six years from 1965 to 1970 (Myers, 1986:49). Japan and the United States predominate here too, for it is they, along with the overseas Chinese, who have been by far the most important sources of inward FDI for Taiwan over the past four decades.

Industrial production had already doubled in the 1950s, and with the new policy direction well in place by the mid-1960s take-off was in the making. Among the major beneficiaries of this buoyancy were Japanese companies who were just starting to look at Taiwan from the perspective of international division of labour come the second half of the 1960s. Japan's 'miracle' was not least founded on flooding the American market with cheap textile, plastic and electronic items. American manufacturers responded by heading for low-cost labour production sites, which in turn forced the Japanese likewise to abandon domestic production to ensure survival. In this process, many American and, subsequently, Japanese companies resorted to Taiwan, which as a result became at one and the same time "a repository for industrial sectors no longer viable in the United States or Japan" (Gold, 1986:81) and an offshore arena where firms from both countries presumed to refurbish their competitive edge, primarily against each other. This was

also the time that Japanese LMEs started to enter as investors, including both the makers of end-user products and those manufacturing intermediary goods for both Taiwan-based and Japan-based corporate customers. Representative of the first category among the five case studies in Chapter Seven is Pentel (stationary goods), and of the second category is Mabuchi (electric/electronic motors).

### 5.6.2 First Phase to Start of 1970s: Adding the Political Realities

The above is an economic account, assuming a pivotal enabling role for the government. However, inasmuch as government is essentially a political organ from which economic policy and structure emanate, a description of the economy without reference to the political background, particularly in Taiwan's case, would remain a depiction of a bland and uncontroled terrain. More to the point, an account of the political circumstances in Taiwan offers clues to the 'missing links' which became increasingly apparent as the economy evolved over the first phase. This is because, throughout this phase, Taiwan was a single-party dictatorship on a quasi-war footing with an agenda which was *political*, and where economics was very much subservient to this political cause. The Nationalist Party (KMT), as the government of the whole of China, recovered Taiwan from the Japanese at the end of the Second World War. It subsequently withdrew to Taiwan as the *claimant* to be ruler of China in 1949 following its defeat by the Communists. Between times, in 1948, in putting down a citizen's rebellion, known as the February 28<sup>th</sup> Incident, against its authoritarianism, the KMT slaughtered an estimated 20,000 to 30,000 Taiwanese, many of them the intellectual elite of the island. This was the start of the 'White Terror' of subjugation which was to reign thereafter for over twenty years, and which to a large extent pitted the Mainlanders, who had followed the Nationalists to Taiwan (*waishengren*), against the local inhabitants, the descendants of people who had immigrated to Taiwan over a period of some four hundred years (*benshengren*).

One consequence is that, because of the highly charged atmosphere where propaganda prevailed over truth and every word published was under the eye of the censor, the statistics produced and the received opinion concocted on which accounts such as this rely are – at any event for the first decade – of questionable value (Gates, 1996; Ishida, 1999). There has doubtless been some hindsight cleansing of the facts. It would seem,

for example, that land reform was not so much a matter of artless implementation of Sun Yat-sen's principles intent on a Chinese-style democratisation, but rather a cold exercise in social control aimed as much at military ambition as economic development.

The government sought to control both the economy as such for political ends and the information consequent upon this control. Its preoccupation with control of the economy is well illustrated by the list of state-owned enterprises (SOEs) in Box 2. Herein is a framework of centralised industrial dominance by which it was intended to manipulate the socioeconomic structure as a whole, incorporating all the basic elements of strategy (petroleum, shipbuilding), infrastructure (power, cement), production (machinery, textiles), and subsistence (fertilizer, sugar). It has been estimated that in 1952 as much as 56% of total industrial production (value added at 1966 prices) and 56% of manufacturing output was accounted for by SOEs (Amsden, 1991:1123). The manufacturing ratio was to decline by some 20% by the 1970s, although the upstream predominance of SOEs was to remain essentially intact (Amsden, 1989, 1991).

The government also attempted to wield the main influence on the economy's development and, through its agencies, present itself as the main instigator of progress, including through the introduction of foreign investment. In this light, the industry originating in the decade of the 1960s which seemingly owes most to the joint attentions of government planner and foreign investor is electronics. It is not only the most outstanding example of the success that has been achieved in Taiwan with the assistance of FDI, but also affords insights into the ambiguities attendant upon such a progression. There was, for instance, a consciously designed effort to elevate the industry's status initiated with the government's expressed intention in 1966 to make Taiwan an electronics centre. In so doing it revised laws to give preferential treatment to investors in that sector and the Council for International Cooperation and Development inaugurated the Working Group for Planning and Development of the Electronics Industry. However, what followed was neither smooth nor particularly regulated. According to Hobday (1995), for example, foreign investors were reluctant to buy components locally, while much of the early transfer of technology was intrafirm and therefore inaccessible to most Taiwanese, rendering initial efforts at technological and industrial intervention largely ineffectual during the 1960s and 1970s. And yet the industry grew astronomically.

## **BOX 2**

### ***Taiwan: Major State-Owned Enterprises circa 1954***

Chinese Petroleum Corporation, Taiwan Aluminum Corporation, Taiwan Gold and Copper Mining Administration, Hsinchu Coal Mining Administration, Taiwan Steel Works, Taiwan Salt Works, China Textile Industries Corporation, Taiwan Power Company, Taiwan Sugar Corporation (with 30 sugar mills, 41,888 hectares of cane farm, 3,247 km of railroad), Taiwan Cement Corporation, Taiwan Fertilizer Corporation, Taiwan Alkali Company, Taiwan Paper and Pulp Corporation, Taiwan Shipbuilding Corporation, Taiwan Machinery Corporation, Taiwan Industrial and Mining Corporation (with metallurgical and mining, chemical, textile, and engineering divisions), Taiwan Agricultural and Forestry Development Corporation (tea, pineapples, marine prods, livestock), Taiwan Tobacco and Wine Monopoly Bureau, Taiwan Agricultural Chemical Works, Taiwan Camphor Bureau.

Number of people employed by these companies: 84,300 (this contrasts with the 120,000 employed by registered private companies, mostly very small).

Source: Derived from Gates (1996:214)

A clue to the reason for this can be found in the fact that, type of government apart, Taiwan had a dependent or 'late developer' status. As such it lacked pioneering technologies and innovating capacities. In seeking to achieve economic development, given this inherent disadvantage, latecomers have diversified into a host of maturing industries, a role in Taiwan assumed by a plethora of small firms. Contradicting the view usually espoused by economists, Gates (1996), an anthropologist, claims that it was in fact these firms which became the engine of export growth in a country with a small domestic market and therefore highly dependent on exports. However, these SMEs were also heavily reliant on the large-scale upstream suppliers for raw and intermediate materials, as well as in many cases for technology and finance. Moreover, monopolising the banking system as it did, the Nationalist Party made cheap capital available to state-run enterprises and a few favoured large private-sector corporations, while all but ignoring the smaller private-sector firms (Hatch and Yamamura, 1996).

One consequence of this was that Taiwanese private-sector firms allied themselves with foreign firms for material inputs, original equipment manufacture (OEM) production agreements, and markets. What this also meant was an uneven juxtaposition of business and technological roles. Hence, to take the case of electronics again, while safeguarding its technological know-how, Japanese LME Mabuchi could sell its motors to small Taiwanese firms making electric razors and toys on an OEM basis for American buyers. Here the implication is that the electronics industry was not so much the child of government planning, but rather nurtured by foreign demand and realised by politically disaffected native businessmen, often originating within the local SME sector, who relied on a core input from a Japanese LME.

This division of roles constituted the seedbed in which Taiwan's distinctive version of the dual economy was to grow. Unlike the delineation commonly applied in Japan's case between *keiretsu* and SMEs, the demarcation in Taiwan's case was between SOEs (*waishengren*) and SMEs (*benshengren*), which when elaborated produces a picture as outlined in Box 4. Amsden (1991) sees Taiwan's company structure as being similar to that of other late-industrialising countries, being characterised by highly diversified business groups, and only differing somewhat in the small average company size on the one hand and the power of the large companies – SOEs, private-sector domestic and foreign – in the whole setup on the other. However, it is this very polarisation *plus* the speed and energy with which economic progress was pursued that can give extra credence to the particular attraction Taiwan potentially had for Japanese LMEs. As already noted in Chapter Four, the emergence of LMEs in Japan can be partly accredited to the need to accelerate the response to external pressure and national ambition. By contrast, given the adversarial internal political situation, conjoined with mounting foreign demand, it is as if Taiwan did not have time to generate indigenous LME-type specialists, and therefore looked outside for key elements required for its economic well-being. This is discussed further later in this chapter.

### BOX 3

#### *Taiwan's Dual Economy circa early 1960s*

##### Public sector

- = capital-/technology-intensive industries
  - = heavy industries
    - = large enterprises
      - = upstream industries
        - = domestic market monopolists
          - = chiefly run by *waishengren*
            - = Chinese

##### Private sector

- = labour-intensive industries
  - = light/processing industries
    - = small and medium enterprises
      - = downstream industries
        - = overseas exporters
          - = chiefly run by *benshengren*
            - = Taiwanese

Source: Derived from Ishida (1999), p. 21

But at the culmination of this first phase politics was to strike one more devastating blow, which would give further definition to the Taiwan that Japanese LMEs contemplated as a business proposition. Progressively isolated from the international community politically speaking, the Taiwanese government took it upon itself to withdraw from the United Nations in 1971. With the simultaneous loss of U.S. support for military adventure – leaving aside the practical certainty of failure – the KMT realised that not only was retaking the Mainland out of the question but that its own very survival was coterminous with the existence of Taiwan. Taiwan started to become Taiwan, not China. This heralded the Taiwanisation of the island's economy and the second phase of its post-war economic development commenced. The key political events leading to this economic eventuality are summarised in Fig. 5.7.

**Fig. 5.7 Political Events and Economic Outcomes to 1970s**

	Political		Economic
1900s - 1930s	Japanese occupation	→	Laying of basic infrastructure
	KMT take-over	→	Land reform
1950s	Plan to retake Mainland	→	Upstream industry development
	Native/outsider divide	→	SME exports
1960s	US aid withdrawal	→	Export-led growth policy
1970s	Taiwan withdrawal from UN	→	Taiwanisation of industrial policy

**5.6.3 Second Phase: Taiwanisation**

The effect of this was that Taiwan, as an increasingly and self-consciously distinctive entity, started to become a dynamically, upwardly-mobile economy. It commenced on a transformation from workhorse depository to disciple of growth through technology, a process which not only offered Japanese LMEs already committed to Taiwan the option of enhancing their operations, but also acted as an inducement to other Japanese LMEs to join them there. Symbolising this new departure was the attention now paid to physical capital outlays in the form of railways, roads, harbours, airports and so on. These had been left virtually untouched since Japanese colonial times. The government now took it upon itself to rectify this situation, launching the first package covering 'ten major construction projects' – six of which entailed modernisation of the transport system – in 1973. Having passed through rehabilitation in the 1950s and export orientation in the 1960s, the economy was now to turn to an era of industrial upgrading. There was to be a shift from labour-intensive to capital- and technology-intensive. This necessitated an even more pronounced intake of foreign technology (Sato, 1999).

Just over twenty years after the culmination of the Chinese civil war, it was possible for the leadership of Taiwan to draw on accumulated physical and educational resources to target specific industrial policy objectives rather than sketch a broad, ambiguous framework. This entailed the acquisition of meticulously identified technologies to complement and enhance the parallel development of domestic capabilities. To this end a number of government-sponsored laboratories were created and various industry-



oriented assistance organisations established; graduate programs were expanded and funds were made available for acquiring foreign technology and promoting domestic R&D.

As regards the institutional makeup, in 1973 the Council for International Cooperation and Development (CIECD), which had been responsible for designing, coordinating and evaluating economic policies since 1965, was replaced by the more professionally oriented Economic Planning Council (EPC). In 1977 the EPC then merged with the Finance and Economic Group to form the Council of Economic Planning and Development (CEPD). The year 1973 also saw the debut of the Industrial Technology Research Institute (ITRI). The primary function of ITRI was as partner in high-priority projects devised by the government, and its initiation was in fact inspired by recognized need to hone R&D in integrated circuitry (Meaney, 1994). Thereafter, once ITRI's technology in a given area had developed to a certain level it was disseminated to the private sector for commercialisation. By the 1980s, ITRI was operating more as an intermediary, orchestrating a wide array of consortia for technology transfer and channelling large subsidies from the Ministry of Economic Affairs (MOEA) for this purpose. It also functioned as negotiator as the Taiwanese electronics manufacturers began to challenge the American and Japanese, rendering the latter more wary about potentially self-destructive collaboration. There were further refinements too. Created as a distinct institute under ITRI in 1974 was the Electronics Research and Service Organisation (ERSO) which took over the integrated circuitry project and became Taiwan's premier research center for complex microelectronics. In turn, ERSO's early prominence in software was eventually eclipsed by the Information Industry Institute following the latter's establishment in 1979.

In precise terms, in the 1970s the emphasis was on a transference from labour-intensive to capital-intensive as typified by television sets, machinery and petrochemicals. Come the 1980s, the strategy lens homed in on microelectronics, information processing, materials, and computers. (Wade, 1990; Gamblin, 1992; Yamauchi, 1998; Asamoto, 1999). This advance to a further stage was symbolised and subsequently bolstered by the government's establishment of Hsinchu Science and Industry Park, which "has replaced the three export processing zones in overall importance" (Simon, 1992:140). Two features characterise the Taiwanese approach here. First, it unabashedly welcomed

FDI as a vehicle for the introduction of new technology, while at the same time trying to ensure that this was an integrative process founded on its own scientific and technological readiness to absorb the inflow (Simon, 1992; Smith 2000). In addition, the purchasing of technology from abroad was often effected by government agencies, like the Industrial Technology Research Institute (ITRI), for subsequent dissemination to the private sector (Simon, 1992). Second, with progressive political democratisation the government gradually brought in, and ceded ground to, the private sector as illustrated by the privatisation of state-owned firms and the involvement of depoliticised industry associations in policy decision-making (Noble, 1998; Huang, 2001). Come the 1980s, in fact, the legislative watchwords were liberalisation and opening up the economy. The rules for competition were clarified in the Fair Trade Act of 1982, to be followed in 1983 by stipulations in the Foreign Trade Act restricting government intervention in business activities (Yatani, 1990).

In short, the government was now promoting the economy in the interests of the economy itself and not for extraneous political ends. This expansive policy did nothing to hinder the inflow of FDI; quite the reverse. As can be seen in Table 5.4, there is a considerable and sometimes huge increase in FDI to Taiwan from each of the countries given between the last decade of the first phase and the first decade of the second phase. Thereafter, until very recent times, progress on aggregate has been virtually unstoppable, notwithstanding two oil shocks, the normalisation of relations between the United States and Communist China, the rapid emergence of alternative investment locations within the region, particularly the Mainland itself, and the Asian financial crisis. Moreover, a further quantum leap was achieved in the 1980s which brought cumulative FDI to US\$8.5 billion in 1988. What is more, in just three years from 1987 to 1989, investments matched the US\$4.7 billion comprising the total for three and a half decades from 1952 to 1986 (Klein, 1992:268).

**Table 5.4 Taiwan: Approved Inward FDI by Year and by Area**

Units: US\$1,000, (Cases)

Area	1952	1953-1960	1961-1970	1971-1980	1981-1990	1991-2000
Hong Kong	1,067 (5)	3,658 (27)	59,445 (423)	276,639 (486)	1,092,977 (488)	2,118,458 (630)
Japan	-	4,873 (22)	98,303 (445)	323,906 (457)	3,317,240 (1,101)	4,939,558 (1,748)
Singapore	-	146 (2)	1,210 (7)	241,217 (34)	226,549 (134)	3,122,479 (485)
Philippines	-	302 (1)	47,004 (57)	102,091 (54)	172,398 (57)	571,400 (31)
U.S.	-	23,615 (16)	223,605 (158)	705,167 (248)	2,695,807 (621)	7,091,291 (1,224)
Britain	-	-	2,771 (8)	7,898 (7)	316,123 (50)	1,367,715 (150)
Netherlands	-	-	22,403 (4)	85,634 (7)	382,364 (52)	1,126,142 (116)
Australia	-	-	233 (1)	2,168 (5)	129,578 (24)	770,538 (68)

Source: Figures derived from *Statistics on Overseas Chinese and Foreign Investment*, Investment Commission, Ministry of Economic Affairs.

Also reflected in the FDI figures is the fact that Taiwan's adaptation is to a marked degree *intraindustry*, and this has over time helped to further define its distinctive characteristics to the potential investor from abroad. As can be gleaned from Table 5.5, electronic and electric appliances, chemicals, and machine equipment have been consistently vibrant and transforming in themselves. Taiwan was designated by Japanese and American firms as long ago as the 1960s as an offshore production base for these industries, a status it has maintained by adapting to the regional and global flow of demands this implies (Sugioka, 2001) (3). Throughout the time since the 1960s Japanese firms have been major investors in Taiwan in all three of these industries, not least Japanese LMEs. To cite companies from among the five case studies in Chapter Seven again, Mabuchi quickly became an integral part of Taiwan's electrical and electronics industry from the very end of the first phase at the beginning of the 1970s in supplying motors to power a variety of simple consumer goods manufactured by both Japanese and Taiwanese owned assemblers. Then, because of the progress in that industry into computers and communications equipment in the 1980s, it was the turn of Union Tool and Tanaka Kikinzoku to invest in Taiwan affiliates in order to service the manufacturers of same with state-of-the-art drill bits and precious metals totally or largely unavailable from local suppliers.

**Table 5.5 Taiwan: Approved Inward Investment by Year and by Industry**  
Units: US\$1,000, (Cases)

Industry	1952	1953-1960	1961-1970	1971-1980	1981-1990	1991-2000
Agriculture & Forestry	-	405 (2)	1,169 (8)	1,388 (4)	1,040 (7)	982 (3)
Fishery & Animal Husb	-	229 (4)	4,250 (17)	6,976 (32)	19,117 (10)	1,879 (2)
Mining	-	73 (1)	310 (1)	191 (2)	12,499 (3)	6,436 (5)
Food & Beverage	-	3,423 (12)	18,597 (68)	36,382 (46)	549,364 (108)	599,907 (94)
Textile	961 (3)	4,260 (7)	16,930 (45)	65,606 (40)	154,944 (21)	323,280 (30)
Garment & Footwear	-	121 (4)	17,789 (102)	19,977 (64)	31,103 (27)	105,100 (27)
Leather & Fur P	-	77 (2)	2,078 (19)	8,258 (19)	14,275 (21)	146,254 (11)
Lumber & Bamboo P	-	86 (0)	2,970 (33)	19,744 (39)	54,310 (25)	43,498 (19)
Paper P & Printing	-	739 (3)	3,120 (19)	12,324 (20)	49,806 (28)	93,980 (26)
Chemicals	8 (1)	17,819 (19)	62,682 (98)	229,588 (120)	1,905,108 (215)	1,712,513 (149)
Rubber P	-	100 (1)	12,336 (111)	54,505 (102)	333,915 (85)	98,177 (12)
Non-Ferrous Metals	-	1,303 (7)	14,245 (60)	313,554 (78)	190,450 (63)	252,369 (39)
Basic Metals & Metal P	98 (1)	-	17,278 (104)	159,212 (152)	770,953 (221)	1,328,024 (144)
Machinery Equipment	-	361 (5)	15,178 (41)	147,930 (97)	892,917 (188)	706,556 (201)
Electronic & Electric App	-	1,043 (2)	220,311 (160)	630,492 (246)	2,283,494 (393)	7,275,664 (925)
Construction	-	11 (1)	23,402 (71)	77,862 (85)	48,683 (43)	414,863 (173)
Transport'n	-	614 (1)	12,832 (23)	33,411 (39)	271,212 (62)	660,473 (150)
Banking & Insurance	-	-	10,380 (10)	90,717 (24)	743,448 (83)	5,953,172 (513)
Services	-	2,191 (2)	45,878 (52)	209,467 (85)	1,302,293 (535)	2,803,128 (1,153)

Source: As per Table 5.4.

NB: P = products

## 5.7 Taiwan's Attraction for Japanese LMEs

The LME is a concentrated 'chamber' of expertise (Chapter Two) which, in the case of the Japanese version, has evolved under specific historical conditions to become a highly effective contributor to that nation's economy (Chapter Four). Part I of this chapter has discussed the role of the East Asian region, of which Japan is a component part, could have played in the internationalisation of this particular type of company. Subsequently, Part II has so far described the country within the East Asian region

which, because of its perennially strong ties with Japan and its post-war path and advancing nature of economic development, could arguably hold out the most attraction for the Japanese LME, especially in its initial internationalisation stage. We are now in a position to elaborate further on what this attraction could entail before turning to the aggregate sample and the case studies in the following two chapters for a more detailed and firm-focused interpretation of LME motives, behaviours and impacts.

### **5.7.1 The Positives**

As soon as it could begin to stand on its own feet in the beginning of the 1950s, Taiwan has always maintained a constructive approach to inward investment, even though in the first instance this was chiefly directed at creating a fortress of self-sufficiency. Hence, in 1952 the government authorised the Regulations for the Encouragement of Investment in Productive Enterprises by Overseas Chinese and Chinese Residents in Hong Kong and Macao. This process was then further facilitated by the Regulations Governing the Importation of Commodities with Self-Provided Exchange by Overseas Chinese for the Purpose of Making Investment in Productive Enterprise. The perspective was broadened two years later with the Statute for Investment by Non-Chinese Foreigners and, in 1955, the Statute for Investment by Overseas Chinese (Schive, 1990:9-10). So with no export policy yet explicit, in the early 1960s the large household electrical makers Sanyo, Matsushita and Hitachi arrived simply to exploit local demand (Zhou and Lin, 1999) in a neighboring country and thereby flex their internationalising muscles. However, a change of mood in the Taiwanese administration was already stirring. The implementation of the second four-year plan as of 1957 saw the beginning of a mutation in policy direction from import substitution to the promotion and expansion of exports. This portended moves extending into the 1960s entailing the first tentative steps into tax reform, deregulation, restoration of market functions, easing of exchange rate controls, and the creation of a capital market (Itoh, 1999), creating the conditions also for FDI on a large scale. So when they started to appear in the latter half of the decade, Japanese LMEs were met with an accommodating administrative disposition.

Added to which, Japan itself had been responsible for laying the groundwork in terms of utilities and basic industrial and social structure during its colonial rule of the island. By the beginning of the 1940s, nearly a quarter of a million Taiwanese were industrial

occupations. "Japan's colonial activities contributed in various ways to Taiwan's post-war economic success. Colonial development established a rapid trajectory of growth, a market culture and an economy [at the start of the 1940s] with the highest exports per head of any country in Asia, including Japan" (Howe, 1996:364). At any event, upon arriving in Taiwan after the Second World War, the Chinese Nationalists under Chiang Kai-shek had inherited a legacy of Japanese rule which placed Taiwan on a considerably higher level of productive capability than East Asian countries other than Japan (Ishida, 1999). This was conducive to making many Taiwanese well-disposed toward the Japanese. The Taiwanese authorities distinguish between overseas Chinese and others partially because the former are not really 'foreign'. Japanese investors are, but they still share many characteristics with the Chinese, bolstered by 50 years experience of colonial rule which enhanced their knowledge of Taiwan's economy, language and culture. "This unique experience, based largely on personal contact, helps reduce both risk and investment size" (Schive, 1990:13, 15). Hence, the smaller Japanese firm was on more familiar ground, and certainly in a more friendly environment, than it would have been almost anywhere else outside Japan, because of their historical and cultural affinity.

Taiwan's state of readiness was also enhanced by the education system it had largely inherited from Japanese rule. It was an institution resolutely adhered to and embellished by the Taiwanese thereafter, culminating in an illiteracy rate of only 6.8% by 1990 (Gamblin, 1992:209). So, while in the early stage labour was cheap and abundant, compared with potential alternatives this labour was also disciplined and educated, and constituted a competitive advantage which proved fortuitously timely in the expansionary world trade environment of the 1960s. Moreover, it meant that, as development progressed, the Taiwanese could absorb intellectually and practically the new and increasingly sophisticated technologies brought in because emphasis in this education was placed on what was required, science and engineering (Wade, 1990). This in turn meant that a pool of capability was there for Japanese LMEs to tap either upon entry or when subsequently upgrading the content of their affiliates' activities.

But probably the single most salient positive reason for Japanese LMEs' continuing investment in Taiwan through to the 1990s was economic growth, particularly as it picked up from the 1970s. Despite the periods of turmoil both domestic and

international, Taiwan's economy blossomed as never before in the first decade of this second phase, not least because rising raw material costs and aggressive competition forced multinationals and Japanese companies of all sizes to seek out cheaper manufacturing venues. Taiwan's annual growth rate during that decade peaked at 13.5% (Gamblin, 1992:55). Although it dipped to 6% in the 1980s, by that time almost all the major electronics multinationals – and therefore quite a number of attendant LMEs – were represented in Taiwan (Wade, 1990). In other words, Taiwan had largely successfully engaged in using and enhancing its competitive advantage to achieve an unprecedented degree of prosperity (Porter, 1990), which Japanese LMEs both contributed to and fed off. It constituted a setting that was geographically, historically and culturally proximate, with an appropriate combination of assets and location factors and a buoyant market environment that made it uniquely suited to the 'first choice – first time' location in East Asia for internationalising LMEs from the mid-1960s onwards.

### **5.7.2 Taiwan's Shortcomings**

However, the attraction of Taiwan for Japanese LMEs can equally well be construed from the standpoint of what Taiwan lacked. *Elucidating this leads to insights as to what opportunities were opened up for Japanese LMEs in Taiwan* and what these LMEs subsequently contributed to the evolution of the Taiwanese economy. As has already been implied, Taiwan's dual structure is partially due to its *late developer* status. Lateness refers to countries that have had to industrialise without the competitive asset of new products or processes (Amsden, 1991). But there is a ranking at work here too. Taiwan would make the grade with regard to most of Gershenkron's (1966) prerequisites for labour, for example; Taiwanese workers by the beginning of the first phase being relatively stable, reliable, disciplined and suitable for using in factories, although not already cut off from direct connection with the land (Gershenkron, 1966:9). But while this labour force may have been diligent and upgraded in quality, during the first phase in particular, in the main this did not generate home-grown innovation or improvements in technology (Kim and Lau, 1993). As a result, even by the early 1970s a large part of Taiwan's exports were still labour-intensive products involving relatively simple technologies, such as textiles, electrical equipment, plastic items, and plywood (Liu, 1999:15).

By contrast, Japan was a late-comer twice in a sense, once during the last quarter of the nineteenth century and a second time after the Second World War, both as a result of self-imposed isolation from the West. But while it did not invent the steam engine or the computer, it was at both times high enough up the ranking to demonstrate a considerable ability for absorption plus incremental improvement and innovation (Herbig, 1995), which proved to be the incubating environment for many LMEs. Despite its heavy technological indebtedness, Japan can still be termed a proactive *instigator*. It devised an industrial policy for catching up with the world leaders; it kept inward FDI to the minimum; it created its own institutional arrangements through general trading companies, banks, JETRO, etc. for attacking overseas markets; it sought to master *all* tasks. By comparison, Taiwan is best described as a proactive *candidate*. Industrial policy, in the first phase at least, is in part an attempt to set the scene for attracting inward FDI. Having been enticed, overseas investors, especially from the United States and Japan, picked Taiwan as a better bargain than other candidates. In this way, right from the start in the early 1960s, Taiwan embarked on the path of *being internationalised* largely by outside forces rather than creating and mobilising internally the industrial resources required for entry onto the international stage. It performed *specified* tasks as a link in a chain of activities over which it had little control. Unlike Japan, again during the first phase, there was no thought of Taiwan becoming an autonomous economic power *per se*, not least because the notion still prevailed among the leadership of 'Taiwan as China' rather than 'Taiwan as Taiwan'. So there was not the pressure-cooker atmosphere nor nationalist fervour that absorbed the Japanese as they strove to compete on the same level as the West, extruding the LME in the process. However, there was "the magnitude of the challenge" which arguably injected a retarding factor (Gershenkron, 1966:18); or in other words, pressure from without induced an even profounder reliance on a well-worn institution, the *Chinese family business*, which became a dominant form of Taiwanese private-sector firm.

To read Whitley (1992), the Chinese family business (CFB) is the very antithesis of the LME. Essentially equating to the business group, or *guanxiqiye*, the CFB is a collection of businesses which individually can be fairly specialised but are quite diverse as a whole. The CFB may thus be involved in a wide variety of industries through shareholdings, partnerships and family alliances (Redding, 1991; Sheah, 1992; Backman, 1995; Hamilton, 1997). Market relations are particularistic and based on



personal contacts. Risk is managed by minimising commitments to particular product lines and technologies and relying on high levels of outsourcing and subcontracting. The CFB focuses on *flexibility* and limiting the extent of commitment to suppliers, traders and customers. With the exception of a few specialists, the CFB places little importance on employees recruited from outside the family. While, as with the LME, the identification of ownership with control proscribes growth of managerial hierarchy, in the CFB's case the lack of empathy with the staff limits the scope for investing in capital-intensive activities which required delegation to competent managers and technicians. There is therefore little incentive to be professionally creative and plan for further, long-term expansion. Moreover, family control being the paramount concern, many inheritors prefer to sell the business or company units within it in order to realise their assets.

In other words, we are back to the distinction between SMEs and LMEs first made in Chapter Two. The bulk of Taiwanese SMEs, even the successful ones, showed no inclination or potential for becoming LMEs. They had little or no long-term commitment to technological efficiency and improvement, no intensely focused market targeting. There was no managerial shift in gravity from kindred to the corporate collectivity. Indeed, the managerial culture that prevailed worked against the long-term commitment to focus and development of core competencies essential to the creation of the philosophy of articulation. Their actions denoted flexibility rather than articulation. In fact they were offering credence to the notion that the SME "cannot be credited with developing the forces of production in late-industrialising countries, even in Taiwan" (Amsden, 1989:164). While they looked to the SOEs, which monopolised their respective domestic markets, for some of their required materials and equipment, many Taiwanese SMEs were not organically enmeshed with these SOEs in what could be construed as part of a prolonged, mutually beneficial endeavour. Rather, they followed their own pattern of development which was outward-directed and often entailed forging associations with foreign capital. The plastic goods manufacturing industry affords a perfect example of where this character and positioning could lead. In 1966 there were 671 SMEs making simple plastic items like boards, pipes, bags, and sundries. By 1976 this had risen to over 5,500 companies doing the same thing. Of this number, 61% had fewer than 10 employees, and the fact that they comprised 97% of the companies in the business in Taiwan did nothing to enhance their importance (Zhou and

Lin, 1999:66). To return to the relevant triangle in Seki's (1996) diagram, they were part of the amorphous crowd in the intermediate technologies. In a country increasingly reliant on special technologies, the more demanding industrial customers developing in Taiwan often had to look to non-Taiwanese suppliers, not least Japanese LMEs (Schive, 1996).

### 5.7.3 The Linkage Function

This has not meant indiscriminate foreign input, however. In Taiwan's case, unlike in Malaysia and Singapore, FDI has contributed only modestly to capital formation, and this mainly in manufacturing (Smith, 2000). Financial capital was, after all, readily available on the island. Miyashiro (1999) is categorical in stating that, looked at in *macro* terms, the contribution of foreign capital in Taiwan is not that great. However, *many case studies make it clear that at industry and company level it is FDI and foreign technology that has made the difference* (Miyashiro, 1999:177). It introduced new technologies, bolstered exports in electronics especially, and gave rise to several new export industries (Schive, 1990; Hobday, 1995). As Table 5.6 shows, even in the 1960s the contribution of foreign capital to fixed capital formation for all industries was only 3.4%, and 5.8% when limited to the private sector. Having declined further thereafter it began to rise in the second half of the 1980s due to changes in the macroeconomic environment. Nevertheless, it remained low by international standards as Table 5.7 makes clear. However, it is not the volume but the specifically targeted nature of industrial FDI that is important.

**Table 5.6 Taiwan's Inward FDI and Gross Domestic Capital Formation**  
(Units: US\$1 million, %)

Period	Total FDI (1)	Gross Fixed Capital Formation (2)	P/S Fixed Capital Formation (3)	Total Ratio (1)/(2)	P/S Ratio (1)/(3)
1960-69	185	5,382	3,181	3.4	5.8
1970-79	682	43,435	22,522	1.6	3.0
1980-86	1,438	88,765	47,678	1.6	3.0
1987-90	4,608	116,700	66,966	3.9	6.9
1991-97	10,113	364,694	192,351	2.8	5.3

1. P/S = private sector.

2. The value of inward FDI based on international balance of payments.

3. Fixed capital formation converted to US\$ according to the exchange rate.

Source: Council for Economic Planning and Development, *Taiwan Statistical Data Book*, various issues.

**Table 5.7 Ratios of Inward FDI to Gross Domestic Capital Formation  
1971-1993 (annual average)**

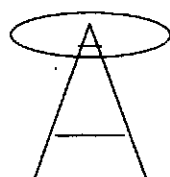
Area	1971-1975	1976-1980	1981-1985	1986-1990	1991-1993
China	0.0	0.1	0.9	2.1	10.4
Hong Kong	5.9	4.2	6.9	12.9	5.7
India	0.3	0.1	0.1	0.3	0.4
Thailand	3.0	1.5	3.0	6.5	4.7
South Korea	1.9	0.4	0.5	1.2	0.6
Malaysia	15.2	11.9	10.8	11.7	24.6
Philippines	1.0	0.9	0.8	6.7	4.6
Singapore	15.0	16.6	17.4	35.0	37.4
Taiwan	1.4	1.2	1.5	3.7	2.6
Indonesia	4.6	2.4	0.9	2.1	4.5

Sources: UNCTAD, *World Investment Report*, 1993 Annex Table 3 (for 1971-80), and *World Investment Report*, 1995, Annex Table 4 (for 1981-93).

#### BOX 4

##### *Supplying the Missing Link*

##### *Missing Link*



Special technologies  
Intermediate technologies  
Base technologies

Source: Seki

##### *Some Solutions*

<u>LME</u>	<u>Year of Entry</u>	<u>Products</u>
Teikoku Tsushin	1965	rheostats and power switches
KOA	1966	resistors
Arakawa Chemical	1967	paper strengthening agents and fenol resin
Matsumoto Yushi-Seiyaku	1968	synthetic starch and oily agents for textiles
Nippon Valqua	1969	asbestos sheet, tape seals, synthetic rubber O rings
Hosiden	1970	switches, connectors, drivers, remote controls

Source: ZNK (1998)

In essence, Taiwan embarked on a navigated infusion of FDI, employing it as a means to embrace the outside world and testing its fundamental rationale of transferring firm and industry specific intangible assets (Smith, 2000). The configuration which transpired was – in its incubation phase at least - a division of labour among the investing firms, local capital and the state which in time spawned variegated vertical and horizontal *linkages*. By forging ties with foreign capital, Taiwanese firms were able more easily to import the requisite machinery, technology, components, raw materials and organisational know-how, process the goods using Taiwan's low-cost and plentiful labour force, and then export abroad, especially to the United States. In this light, one of the noticeable aspects of Taiwan's inward FDI is the complementary and upgrading role specialist entrants began to play from the second half of the 1960s. Hence, as shown in Box 4, Japanese LMEs started to enter to make good the missing link, thereby responding to the 'technology proximity' presented by the Taiwanese, and thereafter remaining in many cases to move in concert with a progressing economy. Indeed, Liu (1996) perceives the trajectory of Taiwan's technological enhancement running consonant with the constantly elevating complexion of the technology of Japanese subsidiaries located in the country.

One significant outcome of this influx and upgrading of foreign investment has been *interdependence*, spawned in the 1980s and fast matured in the 1990s. Its character can be read by two trends. First, extended experience in manufacturing and R&D allowed Taiwanese firms to shed their reliance on ITRI and other state bodies and to articulate their own path of evolution. Second, Taiwan's growing reputation as a technology hub has increasingly induced foreign firms – notably Japanese – to regard the island as a base for advanced manufacturing and R&D (Simon, 1992; Noble, 1998). This 'deeper integration' is emblematic of the transformation of Taiwan from being a nationalistic economy, then an international partner and on to being a significant player in the globalising economy. Moreover, in complementary fashion, this acquired capability and status has proved to be a modulating variable for Japanese LME investors in Taiwan, as they articulate their own internationalisation strategies.

## PROPOSITIONS

### P6

*Taiwan, as a proactive, relatively early yet relatively structurally developed host for FDI, has (i) been an attractive location for foreign firms especially in certain specific industries, and (ii) been able to utilise FDI for effectively leveraging its industrial upgrading and economic growth to a relatively 'high' stage of development. Inward investing Japanese LMEs have played an important role in implementing and complementing this, while benefiting from what Taiwan offers as a location for instigating their own internationalisation strategy through incremental articulation, often as a 'first choice – first time' location in such strategies.*



## RESEARCH QUESTIONS

### RQ6

*(a) What relevance has proximity, as represented by East Asia and Taiwan, had on investment activity by Japanese LMEs?*

*(b) How has FDI by Japanese LMEs assisted them in their larger regional and global strategies, and what have they contributed with respect to integration and upgrading in the process?*

*(c) Analysing by way of a combined quantitative and qualitative approach, how is the LME concept useful in helping to elucidate the globalisation process?*

## 5.8 Summary

Regionalisation is an integral component of globalisation. The East Asian region, as the region in which the headquarters of Japanese LMEs are located, is therefore introduced. It is not yet a political or juridical unit, but has developed significantly since the 1960s as a recognisable economic entity driven by manufacturing trade and FDI, while mediated by some cultural elements and an ever more elaborate structure for economic governance. Highly influential in both of these activities in the region have been Japan and the United States, although other countries began to contribute to intraregional development since the mid-1980s.

Japanese business was initially attracted chiefly to the countries which came to be referred to the Asian NIEs (Taiwan, South Korea, Hong Kong and Singapore) for reasons of geographical and cultural proximity, but also 'technological' proximity, which meant that they could handle the simpler manufacturing and marketing processes. Experience in FDI and increasingly favourable conditions in other East Asian subsequently allowed the practice to spread region-wide. Japanese FDI has played a decisive role, assisting other countries in the region to enhance their economic performance, which has had the effect over time of making the Japanese more aware, as they elaborate their international division of labour strategies, of the individual attributes each of these countries possesses. Reflecting this, Japanese LMEs came to perceive opportunities for their own expansion within the region as an approach to internationalisation, while at the same time complementing the needs of the host countries.

Taiwan, both early on and as it progressed, arguably offered the most attractive first step for Japanese firms proposing to embark on internationalisation. This has been dubbed 'super proximity' because it was not only due to proximity in all its manifestations, but also to the particular passage of Taiwan's economic development, which in the first of the two phases postulated was profoundly influenced by political exigences. Economic planning was ultimately in the interests of a political China; industrial structure was built in an adversarial atmosphere, with large firms (*waishengren*) pitted against small ones (*benshengren*). This, together with the particular practices epitomised by the Chinese family business, had the effect of

creating gaps in the manufacturing production chains and end-user markets which Japanese LME specialists could fill. A positive attraction also for many Japanese firms, including LMEs, was the establishment of Taiwan as a specialist location for certain lines of manufacturing, especially electrical and electronic goods.

However, it was also politics – this time on the international stage – which was to transform this situation as Taiwan became increasingly politically, but not economically, isolated. Political and economic agendas then began to merge as Taiwanisation took hold in the 1970s. Industrial policy and private-sector inclination turned to replenishing the infrastructure and upgrading technology. This turn of events was to offer further inducements to Japanese LMEs, not only because of the constructive host country attitude towards FDI, but also because its demands for growth highlighted loopholes in specialist applications which these Japanese LMEs were in a position to fill through linkage. The internal integration thus created marked a further step in Taiwan's industrial upgrading because Japanese inputs and local production in Taiwan contributed to the appearance of higher value-added items.

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### *Notes*

(1) But even this was to pale against the sixtyfold increase in Japanese manufacturing investments in China between 1985 and 1993 (SME Agency, 1995).

(2) This is a practice not unknown to companies of other nationalities; see Wheeler and Mody (1992).

(3) This contrasts with the following observation where growth is equated with changing leading industries. "For some purposes it is useful to characterise an economy in terms of its leading sectors; and a part of the technical basis for the stages of growth lies in the changing sequence of leading sectors" (Rostow, 1960:14).

### **Japanese LMEs as Investors in Taiwan and Beyond: A Quantitative Analysis**

#### **6.1 Introduction**

To recapitulate the argument so far. There is a distinctive type of company designated here as a leading medium-sized enterprise (LME), which has been characterised in Chapter Two as an entrepreneurially oriented mid-sized company, having developed beyond the framework of the SME not only simply in terms of size but also of disposition, being a specialist adherent to core competences. This approach has rendered LMEs leaders in their prescribed areas of expertise. While such a position has meant that they can successfully link up with the outside world, it has not meant that they can accomplish all-encompassing global strategies practised by the large multinationals. We refer to the particular way the LME conducts its manoeuvring given its bounded range of attributes as *articulation*, and the business environment in Japan (as it has evolved over time) has been particularly accommodating to the articulating LME. In like manner, the East Asian region, and within it Taiwan, has proved receptive to Japanese companies, while the latter have favoured the region – and Taiwan especially – in their internationalisation strategies. The stage has now been reached where these aspects can be synthesised to determine how Japanese LMEs have utilised Taiwan in an articulation exercise as they incorporate the East Asian region into a internationalisation strategy. In doing this, in order to give added perspective to the distinctive situation of the Japanese LME, comparative references are also made to Japanese investing firms in general and one of the country's largest TNCs, Matsushita Electric Industry Co., Ltd., as a benchmark of 'large firm' internationalising behaviour.

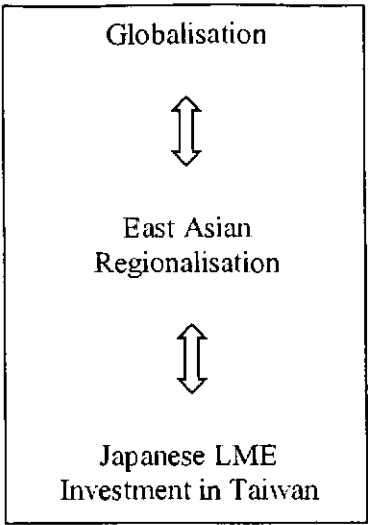
Studying adaptation of LMEs to a dynamic global environment can provide insights into potential internationalising formulae for the smaller firm, notably incremental progression based on an established core competence. Employing the specialised Japanese LME for the purpose takes advantage of the considerable body of published data readily available and accessible as compared with the information that can be obtained for the average SME. In addition, further tightening the scope of operation can help to clarify the process of events over time. Hence, in this study, globalisation forms



the backdrop, the East Asian region the scene of broader integration, and Taiwan the arena where pioneer and/or strategically significant activity actually takes place. This is conceptualised in Fig. 6.1.

Of the estimated population of 110 LMEs used in this study (1), 63 are currently listed in the First Section of the Tokyo and/or Osaka Stock Exchanges and 23 in the Second Section, while the rest, or 24, are not listed. Roughly 70% can be categorised as engaged in midstream and upstream manufacturing, or in other words as integrators operating supporting industries. At 30%, therefore, the proportion of end-product makers is far from insignificant. They have proved themselves just as capable as the others in the population of articulating their internationalisation objectives by way of the East Asian region. They also point to the fact that the term LME is not merely another way of saying subcontractor. Indeed, not a few of the firms among the 70%, like the case study Tanaka Kikinzoku, manufacture both intermediary *and* end-user products. Of the 110 sample LMEs, 33 saw their first foreign manufacturing investment before the end of the 1960s, all of them in Asia and no less than 25 of them in Taiwan. Half of these 33 investing firms and 13 of those investing first in Taiwan were engaged in specialised areas relating to prioritised industries, like car batteries, high frequency coils, condensers, and precision moulds, for example, indicative of the demands for their expertise. By the end of the 1970s, 39 more of the population of 110 had commenced overseas manufacturing during this decade. In other words, a little over halfway through the period under discussion (1961 – 1990) around two thirds, or 72, of the sample LMEs had already invested directly in production abroad. Just as significant was that their FDI was starting to deepen. Of the 33 which had initiated FDI in the 1960s, 15 of them had made at least one more overseas manufacturing investment during the 1970s, all but one of them establishing at least one more base in East Asia. Come 1990, the 110 LMEs were to have a total of around 580 overseas plants worldwide, with something over 400 of them in the East Asian region.

**Fig. 6.1 Positioning of the LME**



**6.2 Methodology Note**

**6.2.1 General Research Background**

In this section of the thesis, we move from reliance on published secondary sources and publicly accessible official data to analysis of more sector level and company level data on Japanese FDI in Taiwan. This poses a new set of methodological problems for the independent researcher in Japan and Taiwan. The Japanese authorities produce a large amount of general information on FDI trends. However, the main shortcoming is that the vast majority is not company-specific. Both the Ministry of Economics, Trade and Industry, or METI (formerly the Ministry of International Trade and Industry, or MITI), and the Japan External Trade Organisation (JETRO) produce annual reports on FDI where most of the information concerns countries and industries. In its annual white paper, the Small and Medium Enterprise Agency (SME Agency), under the jurisdiction of METI, covers international affairs to an extent as it pertains to Japanese small and medium-sized enterprises (SMEs). The SME Agency conducts a number of surveys throughout the year on which much of its findings are based, and for this purpose it limits the investigations to firms with more than 10 and less than 300 employees. It does not make a distinction between ‘small’ and ‘medium-sized’.

A similar situation prevails regarding local governments and quasi-government organisations. The Tokyo Metropolitan Commerce and Industry Guidance Office (*Tokyoto Shoko Shidosho*) annually comes out with a very detailed SME white paper, but also devoid of names, while the Japan Small Business Research Institute (*Chusho Kigyo Sogo Kenkyu Kikai*) produces reams of general, non-firm-specific data. All the above-mentioned information is readily available and generously supplied. However, such accommodation is not always forthcoming for researchers reliant upon other sources. For example, two visits to the government-run Japan Small Business Corporation (JSBC), which is actively involved in assisting smaller firms to invest abroad and therefore must have a rich pool of detailed information, yielded no literature of any consequence. (This, despite being accompanied by a respected Japanese academic small business specialist.) However, from a ministerial source I was quite happily given JSBC's *Kaigai Tenkai Chusho Kigyo Jittai Chosa Hokokusho* (Survey Report on the Situation of Small and Medium Enterprises Developing Overseas) for 1998, which *does* in fact name companies.

Added to this, there can on occasion be difficulties regarding access to information on Japanese FDI in Taiwan because of Taiwan's unique status diplomatically speaking. In Tokyo, for example, entry into JETRO's library simply demands the completion of a very brief form. JETRO's camouflage for its dealings with Taiwan is the Interchange Institute (Japan) (*Nihon Koryu Kyokai*). Its office in Japan is accessible (with an introduction preferably) and the written materials available for viewing and copying are fairly extensive. The Taiwan office, on the other hand, is like a fortress. An introduction is almost mandatory, one passes through two inspection points with permanently locked doors, and the library consists of what the official deems you require. Nevertheless, good general information was made available for this research from both offices, quite a substantial part of it naming companies, both Japanese and Taiwanese. On the other hand, when I asked an official in the Taiwan office to help me contact some of the 110 sample Japanese LMEs known to be active in Taiwan and identified from public sources, he denied knowledge of any of them, saying that he only dealt with companies in the handbook called *The Japanese Chamber of Commerce & Industry, Taipei*. This despite the fact that eighteen of the firms in my list are in fact members of the said chamber, and that legislation has been in place since the early 1980s stipulating that one of JETRO's functions is to assist smaller Japanese firms in their FDI efforts.

Given this situation, to obtain the detail required beyond background information, one is obliged to resort largely to sources produced by the private sector. Inevitably this means that no single body of information will be complete. Nevertheless, Japan in particular boasts a large volume of literature published in newspaper, magazine and book form and Taiwan is also far ahead of most other countries. Among the publications used for this thesis, for example, are the *Nihon Keizai Shinbun* (or *Nikkei*) and *Jingji Ribao*, the flagship economic dailies of Japan and Taiwan respectively, and the books and weekly magazine published by *Toyo Keizai* (Oriental Economist). Another source in Taiwan is Nomura Research Institute (NRI). This Japanese firm was appointed by the Taiwanese government in 1995 to act as an agent for encouraging Japanese investment in Taiwan. In fulfilling this assignment NRI produces considerable general information concerning the activities of the Japanese business community there, including profiles of actual companies, and this has been copiously forthcoming. Although again, putting an independent researcher in touch with individual companies on my list was apparently out of the question for these organisations.

#### **6.2.2 Detecting Japanese LMEs**

For detecting Japanese LMEs which have invested in Taiwan since the 1960s the following publications were used: *Zaika Nihon Kigyo Soran* (1998) (ZNK), *Japan Company Handbook* (Winter 1999) (JCH), *Nihon Kaisha Joho* (Autumn 1999) (NKJ), *Mijojo Kaisha Ban* (Winter 1999/Spring 2000) (MKB), and *Kaigai Shinshutsu Kigyo Soran* (2001) (KSK). The basic details are presented in Fig. 6.2.

ZNK is the fullest and most detailed listing of Japanese investors in Taiwan that I have found. It is published by the Taipei office of the American law firm Baker and McKenzie Inc., in Japanese, and therefore directed essentially at a Japanese readership. In that the publication relies on companies responding to requests for information it is bound to be incomplete and, indeed, I know of companies which are not included. However, it does present 1,085 companies from the very large to the very small and can be claimed to offer a cross-section for initiating the investigation. Among the information given are the date of approval of registration in Taiwan and the latest equity ratio of the Japanese company. This latter allows for the elimination of those holding less than 25% of a joint venture which in 1969 was thought by the Japanese authorities

as stipulated in the Foreign Exchange and Foreign Trade Control Law to be the minimum for the Japanese side to exercise an influence over the management, although this has been lowered since to 10% (Tokunaga, 1992a:13). The companies are listed by their Taiwan Chinese (TC) name under which is their Taiwan English (TE) name, followed by the Taiwan address. Under that comes the Japan Japanese (JJ) name with the head office address in Japan (Fig. 6.3). This enables us to see if the company features in JCH, NKJ or MKB.

JCH is in English and actually comprises two books, one for the first sections of the Tokyo, Osaka and Nagoya stock exchanges and one for the second sections. NKJ is essentially a Japanese language original for JCH, although published by Nihon Keizai Shinbun. In addition, it gives somewhat more company information and also includes extra companies on the Kyoto, Hiroshima, Fukuoka, Niigata and Sapporo exchanges. MKB is a large compilation of unlisted companies. Many significant firms, including for example Fuji Xerox and Idemitsu, are not stock exchange listed but do appear in MKB, so it is reasonable to assume that important LMEs are included in this publication too. So the JJ obtained in ZNK was first cross-referenced in JCH/NKJ, and if not there, a further check was made in MKB. Quite a few companies given in ZNK were not found in any of the other publications, but most were successfully traced. From JCH/NKJ or MKB it was possible to learn the size of the parent company in Japan in terms of number of employees and capitalisation together with whether it was chiefly a manufacturer or non-manufacturing (general) firm.

**Fig. 6.2 Publications Used for Detecting Japanese LMEs**

<u>Designation</u>	<u>Full Name</u>	<u>Language</u>	<u>Publisher</u>	<u>Number of Companies</u>
ZNK	Zaika Nihon Kigyo Soran (Survey of Japanese Firms in China [Taiwan])	Japanese	Baker and McKenzie	1,085
JCH	Japan Company Handbook (First Section)	English	Toyo Keizai	1,494
JCH	Japan Company Handbook (Second Section)	English	Toyo Keizai	1,937
NKJ	Nihon Kaisha Joho (Japan Company Information)	Japanese	Nihon Keizai Shinbun	3,446
MKB	Mijojo Kaisha Ban (Unlisted Company Edition)	Japanese	Toyo Keizai	7,119
KSK	Kaigai Shinshutsu Kigyo Soran (Survey of Companies Investing Overseas)	Japanese	Toyo Keizai	18,500

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1. *Zaika Nihon Kigyo Soran (1998)* (ZNK), gives details of Japanese-invested firms operating in Taiwan.

2. *Japan Company Handbook (Winter 1999)* (JCH), details firms listed on the major stock exchanges in Japan, plus over-the-counter listings.

3. *Nihon Kaisha Joho (Autumn 1999)* (NKJ), a Japanese-language publication almost identical in content to JCH above.

4. *Mijojo Kaisha Ban (Winter 1999/Spring 2000)* (MKB), presents details of currently significant but unlisted Japanese companies.

5. *Kaigai Shinshutsu Kigyo Soran (2001)* (KSK), provides information about FDI by Japanese companies worldwide.

**Fig. 6.3 Company Names**

<u>Designation</u>	<u>Description</u>	<u>Example</u>	<u>Source</u>
JE	English name in Japan and internationally	Fujitsu General, Ltd.	JCH/MKB
JJ	Japanese name in Japan	Fujitsu Zeneraru K.K.	ZNK + NKJ/MKB
TC	Chinese name in Taiwan	Dacheng Gongye	ZNK
TE	English name in Taiwan	Da Cherng Industry Co., Ltd.	ZNK

**Fig. 6.4 Company Size/Type Designations**

<u>Designation</u>	<u>Meaning</u>	<u>Number of Employees</u>
ML GL	Manufacturing/Large General/Large	2,000+
MM GM	Manufacturing/Medium-sized General/Medium-sized	200 – 1,999
MS GS	Manufacturing/Small General/Small	199-

Size of the *investing company in Japan* is the first criterion for operationally defining an LME, and we are concentrating on manufacturing, so the category MM, as in Fig. 6.4, is the broad target group for identifying LMEs. This complies with the definition of size given in Chapter Two. However, two other criteria are relevant: the LME is independent and the investments in Taiwan must have been made within the period from the 1960s to 1990. By extracting and combining selected information from the first five publications listed in Fig. 6.2 a brief summary is realised as in BOX 5. As well as being of the required size, the LME must be independent. As Nakamura (1990) has indicated, in the Japanese business system of numerous shades of affiliation it is often a fine line between what can be defined as independent or subsidiary status. In addition, as noted in Chapter Four, companies like Akcbono Brake which could justifiably be classified as subsidiaries thirty years ago can now – having diversified their customer

base well beyond reliance on one or a very few firms – be categorised as independent. That having been said, both JCH/NKJ and MKB indicate in their introductory remarks whether it is generally recognised that the company is a subsidiary of or has strong affiliations to a larger partner. In addition, they also name the major stockholders. For this study, if a major stockholder is a large distinct company holding over 15% of the stock, as opposed to an individual owner, an owners' or employees' trust or the like, the investing company is not considered to be independent, and therefore not an LME.



## BOX 5

### *Summary Profile of a Japanese LME Investing in Taiwan as Synthesised from Sources:*

#### Hosiden

*LME Status in Japan:* Leading manufacturer of mechanical components with high market shares in sockets and jacks.

*Established in Japan:* 1950

#### *Company Names and Addresses (Japan and Taiwan)*

JE	Hosiden Corporation	1-4-33, Kita-Kyohoji, Yao City, Osaka Pref.
JJ	Hoshiden K.K.	Tel: 0729-93-0071 <a href="http://www.hosiden.co.jp">www.hosiden.co.jp</a>
TC	Taiwan Xingdian (Gu)	3 <sup>rd</sup> Fl. 75 Chang An E. Rd., Sec. 1, Taipei
TE	Taiwan Hosiden Co., Ltd.	Tel: (02) 5710017

#### *References (Page)*

ZNK (453) JCH(1) (792) NKJ (739) MKB - KSK (188)

#### *Investment Details*

Taiwan approval date (ZNK) 1970 Capital increase dates 1974, 1976, 1978, 1987, 1990  
Current capital ratios: Hosiden Corporation 100.0%

#### *Designations*

Company size/type designation **MM(I)\***

No. of employees in Japan (JCH) 1,083

No. of employees in Taiwan (ZNK) 226

Main products/business in Taiwan (ZNK) Manufacture and sales of: switches, connectors, drivers, handsets, remote controls.

#### *Investment Merits (ZNK)*

Guaranteeing work force, local sales in Taiwan; exports to third countries and Japan.

*Sources of Raw Materials (ZNK):* Taiwan, Japan, ROK, etc.

*Sales/Export Destinations (ZNK):* Taiwan, HK, Singapore, Japan, Germany, US, etc.

#### *Other Investments Worldwide (KSK)*

East Asia Manufacturing: South Korea (1973), South Korea (1978), Malaysia (1989), China (1992)

East Asia Sales: Hong Kong (1966), Singapore (1978), Malaysia (1992)

Rest of World Manufacturing: Britain (1990), Mexico (1995)

Rest of World Sales: United States (1978), West Germany (1986)

With the date of registration approval in Taiwan, the size/type designation, and confirmed independence status it is now possible to pinpoint the Japanese manufacturing LMEs which invested in Taiwan from the 1960s on. In BOX 5 this is indicated by **MM(I)\***, the **(I)** standing for independence and the asterisk for the right time period. KSK is used to confirm the basic details about the Taiwan affiliates recorded in ZNK, although it does not provide as much detail for each investment as the latter. However, it does give the names and dates of establishment of all Japanese company affiliates worldwide, therefore allowing us to trace the full picture of investments and see, for example, how concentrated they are in East Asia as compared with the world as a whole.

### **6.2.3 Company Names**

As can be seen from Fig. 6.3 and BOX 6, investing Japanese companies can go by a number of names. Understanding this is indispensable for detecting Japanese LMEs in Taiwan. As stated above, most official information is not firm-specific. There is a printout of Japanese investors made available by MOEA's Investment Commission which is useful in that it is voluminous - including hundreds of companies - and, being more up-to-date, can be employed to cross-check data from other sources. But it only gives the TC names and the JJ names in characters, plus an outline of the area of business; no indication of the size of operations either in Japan or Taiwan is provided. These must be filled in from other sources.

The following is a general explanation of the problem, while a more detailed elucidation is given in BOX 6. This chapter is about Japanese *LMEs* investing in Taiwan. At the beginning of the period discussed, Taiwanese regulations concerning inward investment often specified the necessity for a local partner. If the Japanese firm was large and held the bargaining advantage, like the pharmaceutical companies which came in in force in the early 1960s, they could more or less dictate the name of the locally established company in Taiwan. This was also the case for the big electronic and automobile manufacturers like Hitachi and Toyota respectively, for instance. Because these are easily recognisable, even if the Taiwanese may pronounce the characters differently from the Japanese (see BOX 6), a common assumption has taken root in Taiwan that the only Japanese investors are the large, household names. This misconception stems from

the fact that many Japanese investing firms, including most of the LMEs, be they acting through joint ventures or wholly owned subsidiaries (having taken advantage of the more relaxed regulatory climate starting in the 1980s) are simply *unrecognisable* at first sight as Japanese. Having set up in Taiwan, a Japanese firm can have acquired up to four names (or more, depending on whether it has followed through into Mainland China and other Asian countries, for example.) These are: (i) its original Japanese name (JJ), (ii) its English/international name used in Japan and elsewhere (JE), (iii) its Chinese name in Taiwan (TC), (iv) its English name in Taiwan (TE). Of particular importance for this study is to be able to readily associate (i) and (iii) in the data as discussed below. Suffice to say here that (iii) could be any of: (a) the Japanese name using the original Japanese characters (which are pronounced differently in Chinese); (b) characters different from the Japanese original chosen so that the name will be pronounced by the Chinese roughly as it would be in Japanese; (c) the Taiwanese joint venture partner's company name; (d) a combination of some of the characters of the original names of the Japanese and Taiwanese partners; (e) a new name.

#### **BOX 6**

##### ***Transliteration of company names***

The heart of the problem caused by transliteration of names is the different writing systems. The Japanese writing system consists of characters mostly of Chinese origin together with two phonetic syllabaries, *hiragana* and *katakana*. The latter syllabary is used to 'spell out' foreign words and names, so that Microsoft becomes *Maikurosofuto*, for example. Chinese has no syllabaries, with the consequence that when rendering the names of western companies in Chinese it either translates the meaning of the name or gives a rough idea of the sound, often restricted to three syllables if the firm is very familiar. So, in the first case, by putting together two characters meaning 'very small' and 'soft' we get *Weiruan*, or Microsoft; and more obviously *Tongyong* (General) plus *Qiche* (Motors) means precisely what it says. As for reproducing the sounds, *Dubang* is Du Pont and *Keko Kele* is Coca Cola, while more obscurely *Huipu* is somehow a rendition of H.P. and therefore Hewlett-Packard, and the highly familiar McDonalds is *Maidanglao*.

But this is relatively simple compared with how to handle Japanese company names in Chinese. To begin with, when the Japanese adopted the Chinese characters nearly two millenia ago, they needless to say already had a spoken language. As a result, they proceeded to produce arguably the world's most arcane writing system. One of the features of this is that the same character can usually be pronounced in at least two completely different ways, one being the original Japanese word (kunyomi) and the other an imitation of the Chinese (onyomi). So *matsu* and *shita* are both kunyomi pronunciations which can combine for Matsushita. If read as onyomi they would be *sho* and *ka*, which in modern Chinese are pronounced *song* and *xia*. So if a Taiwanese saw Matsushita written in characters and knew nothing about the company he could be forgiven for pronouncing it Songxia and thinking that it was Taiwanese. A Japanese company may get round this either by displaying its name in 'English' using the alphabet (as Yamaha does in Taiwan) or selecting arbitrarily characters which will induce the Chinese to pronounce it more or less as in the Japanese (as Yamaha does in Mainland China). In addition, some Japanese company names have never been written in characters in Japan but (as with Western companies) must be registered with a Chinese-character name in Taiwan. Sony, for example, like Exxon is a name conjured up to be as far as possible globally pronounceable and is only written in katakana (*Sonii*) in Japan. There again, it has been fashionable for Japanese companies to be given English names first which are then rendered in katakana as with Central Glass (*Sentoraru Garasu*) given in the list below. As examples, below are five Japanese-invested companies which registered in Taiwan in 1969 according to *Zaika Nihon Kigyo Soran* (ZNK) with their original Japanese name (JJ), their Chinese name in Taiwan (TC), and how the latter was derived using the designations (a) to (e) as given in the main text:

JJ-Hitachi Seisakusho K.K.	TC-Taiwan Rili Dianshi Gongye (a) (Chinese Rili = Japanese Hitachi)
JJ-Janome Mishin Kogyo K.K.	TC-Taiwan Chelemei Fengyiji (b) (Janome → Chelemei)
JJ-Sentoraru Garasu (Central Glass) K.K.	TC-Yusheng Gongye (c)
JJ-Raion (Lion) K.K.	TC-Taiwan Shiwang Huahong (d) (Shi=Lion, Wang=Chinese name)
JJ-Fuosutaa (Foster) Denki K.K.	TC-Fengda Dianji Taiwan (e)

## **6.3 Aggregate Analysis: Taiwan Manufacturing Affiliates**

### **6.3.1 Population of Japanese LME Investors in Taiwan**

The reference sample comprises 110 Japanese LMEs which made at least one direct investment in Taiwan between the early 1960s and 1990 and were still in operation there in fiscal 2001. This entailed searching through data produced in Taiwan (ZNK) concerning Japanese corporate investors in Taiwan. The firms thus found were then matched against published data in Japan (JCH/NKB and MKB) to see if they could be justifiably be defined as LMEs on the criteria of sector, size and independent ownership status. The more intangible criteria of focused competence and technical leadership could not at this stage be used (from these sources) as defining criteria, but came into consideration in the selection of case studies in the detailed firm level analysis in the next chapter. However, the invariable profile description of these selected firms as 'leading manufacturer' or 'high market share' in these sources gives confidence to their designation as LMEs. As a result, 110 Japanese firms with *Taiwan manufacturing affiliates* (TMAs), or corporations registered in Taiwan as engaging in some form of manufacturing, in which Japanese firms which could be defined as LMEs had substantially invested, were identified. In the nine instances where the Japanese LME has invested in more than one TMA, the first of their investments is adopted for the analysis in this chapter (although all investments made are discussed when appropriate in Chapter Seven). The sample of 110 TMA cases is employed here to describe the character of Japanese LME direct investment and the transformations it has undergone within Taiwan as circumstances have evolved. This is done by first investigating the types of LMEs investing in Taiwan, which is followed by a discussion of change in the investment over time. Attention then turns to the extent to which the businesses invested in in Taiwan are linked to Japan, the East Asian region and the world at large with reference to data concerning the sources of materials used by the affiliates and the ultimate destinations of the items they produce.

### **6.3.2 Characteristics of Sample LMEs**

Two characteristics stand out with regard to the FDI by Japanese LMEs. First, in terms of cases, the numbers of their investments follow the pattern of ranking investment as a

whole coming into Taiwan and for investment from Japan in general. That is, 'electronic and electric appliances' assumes a significant lead, followed by 'chemicals' and 'machinery' (Table 6.1). In fact, in this sample these three categories account for considerably more than 50% of these approved investments and, as Fig. 6.5 implies, they have been a consistent feature of new LME investment throughout the period. Second, and hardly surprisingly given the definition of LME established here, the investments are highly specialised in nature. Both these points suggest that such LME investment overall has not been an exercise in sloughing off sunset obsolescence, but is to be seen rather as an attempt to seek engagement with a vibrant economy.

**Table 6.1 Japanese LME FDI in Taiwan by Industry, 1961-1990: 110 Cases**

Industry	1961-65	1966-70	1971-75	1976-80	1981-85	1985-90	Total
Food & Beverage Processing		1				1	2
Textiles	1	3				1	5
Garment & Footwear					1		1
Paper Products & Printing						1	1
Chemicals		5	2	5	2	6	20
Rubber Products					1	1	2
Plastic Products			1	1			2
Non-Ferrous Minerals	1	1				1	3
Basic Metals & Metal Products		3	1	1	1	3	9
Machinery		7	2	2	1	9	21
Electronic & Electric Appliances	1	9	6	3	1	7	27
Transport Equipment		1		2	2	1	6
Precision Instruments		1	2	2			5
Miscellaneous		1	2			3	6
Total	3	32	16	16	9	34	110

Source: Derived from ZNK

NB: The industrial categories are those employed by the Taiwanese Ministry of Economic Affairs. Categories 'Leather & Fur Products' and 'Lumber & Bamboo Products' are not included because no investments were made in them by the sample companies.

**Fig. 6.5 Examples of LME FDI in Electrical and Electronic Appliances,  
Chemicals and Machinery**

<b>Electrical and Electronic Appliances</b>	
LME: KOA Corporation	1966
TMA: Dha Hsing Electric Co., Ltd.	
Manufacture and sales of resistors	
LME status in Japan: Major manufacturer of resistors	
LME: Tamura Corporation	1973
TMA: Kaolung Tamura Electronic Co., Ltd.	
Manufacture and sales of transformers, switching power supplies, AC adaptors	
LME status in Japan: Leading manufacturer of transformers	
LME: Tanashin Denki	1986
TMA: Tanashin (Taiwan) Ltd.	
Manufacture and sales of audio recorders and VTRs	
LME status in Japan: World leading specialist maker of cassette and VTR decks	
<b>Chemicals</b>	
LME: Arakawa Chemical Industries, Ltd.	1967
TMA: Taiwan Arakawa Chemical Industries, Ltd.	
Manufacture and sales of paper strengthening agents and other chemicals	
LME status in Japan: The top maker of paper-making chemicals	
LME: Cemedine Co., Ltd.	1977
TMA: Taiwan Cemedine Co., Ltd.	
Manufacture and sales of industrial adhesives	
LME status in Japan: Top specialty maker of adhesives	
LME: Rinrei Wax Co., Ltd.	1987
TMA: Taiwan Rinrei Corporation	
Manufacture and sales of floor wax, detergents	
LME status in Japan: Leading maker of wax and detergents for industrial, etc. use	
<b>Machinery</b>	
LME: Janome Sewing Machine Co., Ltd.	1969
TMA: Taiwan Janome Sewing Machine Co., Ltd.	
Manufacture and sales of household sewing machines and parts	
LME status in Japan: Largest manufacturer of household sewing machines	
LME: Takuma Co., Ltd.	1980
TMA: Chieng Shyong Machinery Co., Ltd.	
Manufacture and sales of industrial boilers, waste heat boilers	
LME status in Japan: Renowned boiler plant maker	
LME: Union Tool Co.	1985
TMA: Taiwan Union Tool Corporation	
Manufacture and sales of ultra hard drills for PCBs	
LME status in Japan: 30% of world market for PCB piercing drills	

In many ways, the trends and attitudes exhibited by manufacturing LMEs are similar to those for Japanese manufacturing firms in general. So some data of a general nature can serve to underline the situation experienced by the LMEs. The figures in Table 6.2 are aggregates of approvals of Japanese firms of all sizes and the sectoral distribution is similar to that for LMEs. The data tend to overstate the situation because not all approvals are acted upon. However, the reverse can be claimed regarding the figures in Table 6.3 in that, being a sample of 815 cases of Japanese investment taken from the ZNK survey, they do not account for *all* investments made over the thirty-year period (2). Nevertheless, the same sectoral and temporal patterns are still clearly manifested, while the overwhelming predominance of manufacturing (where LMEs excel) stands out.

**Table 6.2 Japan's Cumulative Approved Manufacturing FDI in Taiwan, 1952-1997**

Unit US\$1,000

Industry	Cases	Amount
Food & Beverage Processing	73	224,725
Textiles	35	97,074
Garment & Footwear	49	59,703
Leather & Fur Products	13	4,337
Lumber & Bamboo Products	26	30,677
Paper Products & Printing	17	10,450
Chemicals	183	631,007
Rubber Products	104	217,040
Plastic Products	9	18,325
Non-Ferrous Minerals	69	131,860
Basic Metals & Metal Products	293	607,786
Machinery	200	723,656
Electronic & Electric Appliances	423	2,017,961
Transport Equipment	15	260,744
Precision Instruments	10	47,667

Source: Statistics on Overseas Chinese and Foreign Investment, Investment Commission, MOEA



**Table 6.3      ZNK Cases of Japanese FDI in Taiwan, 1961-1990**

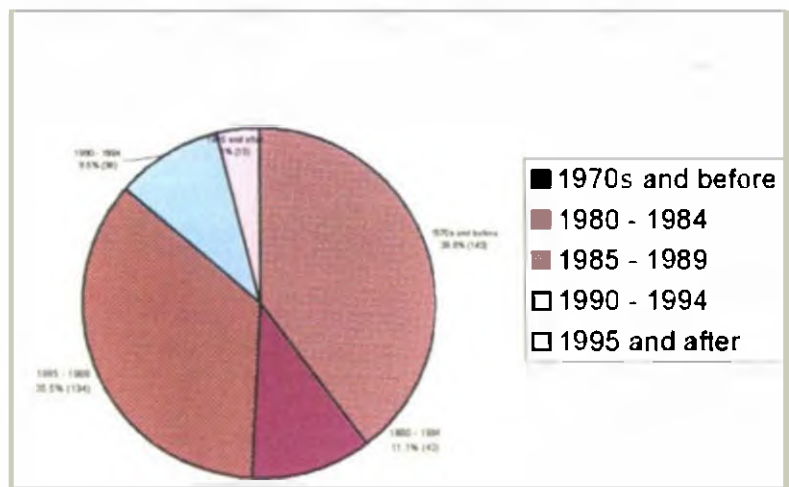
	1961-65	1966-70	1971-75	1976-80	1981-85	1986-90	1986-90
Total	38	123	89	81	91	393	815
Manufacturing	32	115	80	67	65	265	624
Non-manufacturing	6	8	9	14	26	128	191

Source: Derived from ZNK

N.B. The designations 'manufacturing' and 'non-manufacturing' are based on the activity in Taiwan.

In 1999 the Interchange Institute (Interchange Institute, 1999) conducted a survey of Japanese manufacturing and non-manufacturing enterprises which have invested in Taiwan (covering all types of firms, not just LMEs). One aspect of the survey concerns *when* sample manufacturing firms established their base in Taiwan. As can be seen in Fig. 6.6, practically 40% of the manufacturers had arrived by the end of the 1970s. Another big rush occurred subsequent to the Plaza Accord of 1985, when the Japanese yen doubled its value against the US dollar by 1987. Although, actually the New Taiwanese dollar was reacting in precisely the same way as the yen, while wages in Taiwan were also appreciating fast. The conclusion can be drawn, therefore, that Japanese manufacturers (including LMEs) descended on Taiwan not solely for reasons of cheap labour, a point to bear in mind concerning a number of the LMEs discussed in more detail below.

**Fig. 6.6      Time of Establishment by Manufacturing Firms in Taiwan**



Source: Interchange Institute, *Koryu*, No. 595. April 15, 1999

### 6.3.3 Elements of Change

Once the investing Japanese LMEs ensconced themselves in Taiwan, change has been the order of the day. Monitoring the dynamics of change and reaction is another way of assessing how Japanese LMEs have directed the course of their TMAs as they address transformation. Three aspects are selected here as illustrative of this phenomenon: perceived advantages, commitment, and withdrawal. With respect to *perceived advantages*, the ZNK data include a column where the responding companies can indicate the advantages they see in investing in Taiwan. Table 6.4 is a compilation of a number of these as drawn from the ZNK data for LMEs investing from 1961 to 1990. The value placed on the *Taiwanese worker* by the LME employer seems to be consistent throughout, implying a relatively stable relationship. However, there appears to be a growing appreciation of *technical competence* which arguably reflects the results of the Taiwanese commitment to technological upgrading from the beginning of the 1980s. Another point which can be inferred from this table is the increased interest in using Taiwan as a *production base for exports* to other countries in the East Asian region. The two factors together suggest that by the end of the 1980s Taiwan, in the eyes of Japanese LME investors, was becoming a base at a comparatively high skill level capable of servicing the region – and beyond – efficiently and at reasonable cost. This suggests a co-maturing of both the Japanese production facility *and* the Taiwanese economy over the period, a process in which the former can be represented as the driver, via the transfer of technology, labour skills and management skills into the latter.

**Table 6.4** Reasons Given by LMEs for Investment in Taiwan, 1961-1990  
(multiple response)

Merit	1961-1970	1971-1980	1981-1990	Total
Technical cooperation	11	8	12	30
Work force	14	17	14	45
Reduced costs	4	-	3	7
Local materials supply	1	3	2	6
Taiwanese market	13	13	15	41
Exports in general	9	8	6	23
Exports to SE Asia/China	9	6	11	26
Exports to Japan	4	2	-	6
None	2	3	6	11
Total	66	60	69	195

Source: Derived from ZNK

NB: 'Technical cooperation' here is taken to mean technology transfer from Japan, together with the implication that the Taiwanese workforce is capable of handling the technology introduced, and also the development of new or improved products.

Again, a further indication of the general objectives of Japanese business (not just LMEs) can be drawn from the Interchange Institute's survey. The main *motives* these companies give for setting up in Taiwan are shown in Fig. 6.7. This reveals that a strong motive is the Taiwanese market. This is also strong among LMEs, although somewhat less pronounced, possibly because Fig. 6.7 does not address the workforce or highlight technical compatibility. However, Fig. 6.8 does, and the fact that over 50% of the firms in the Institute's survey have increased their workforce over time implies the same overall satisfaction suggested by the LMEs in Table. 6.4 (3).

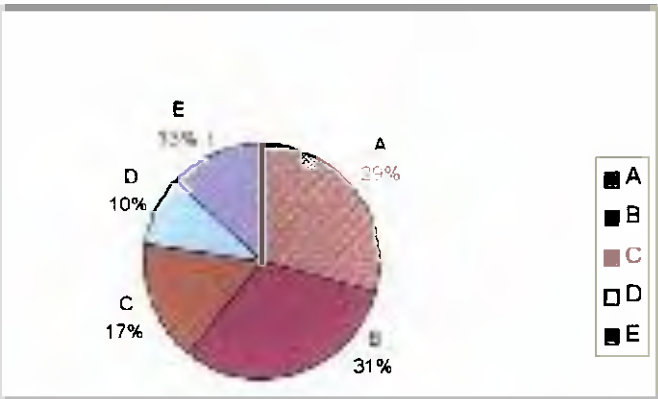
Significant for both groups of companies are exports, although the LMEs do not share the same commitment as the generality of investors to selling back to Japan, possibly due to the high percentage of intermediary suppliers among LMEs compared to those in the general sample which is likely to include a fair number of large assemblers. Like Table 6.4, Fig. 6.9 makes clear the importance to Japanese investors of Taiwan as a base for production and exporting. Just over 80% export some of their output. Exporting is discussed further below with regard to its regional and global implications for LMEs.

**Fig. 6.7 Main Motives for General Japanese Manufacturing Firms to Invest in Taiwan**  
(multiple response)

<i>Motive</i>	<i>Responses</i>	<i>Ratio (%)</i>
1 Expanding sales in Taiwan market	240	50.8
2 Producing in Taiwan and export to 3 <sup>rd</sup> country (not Japan)	101	21.4
3 Producing in Taiwan and export mainly to Japan	64	13.6
4 Buying in Taiwan and export to 3 <sup>rd</sup> country (not Japan)	9	1.9
5 Buying in Taiwan and export mainly to Japan	14	3.0
6 Production guidance, international buying or other coordinating work involving China, Hong Kong, etc.	16	3.4
7 Other	28	5.9

Source: Interchange Institute, *Koryu*, No. 595, 1999

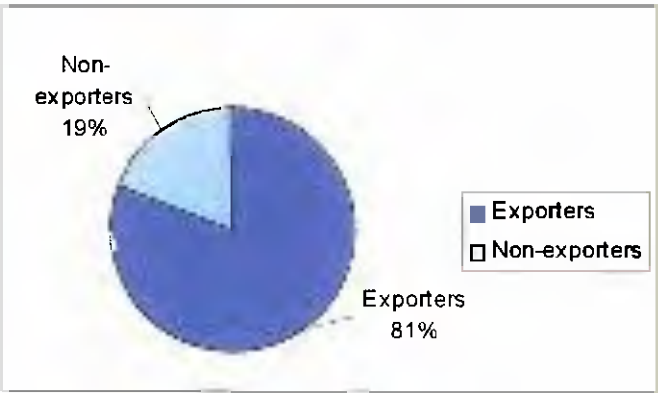
**Fig. 6.8     Growth in Number of Employees since Establishment**



Case	Situation
A	Big increase
B	Gradual increase
C	Almost no change
D	Some reduction
E	Big reduction

Source: Interchange Institute, *Koryu*, No. 595, 1999

**Fig. 6.9     Exporting Firms (1997)**



Source: Interchange Institute, *Koryu*, No. 595, 1999

Another feature of the ZNK data for 1961 to 1990 is that it records the dates at which each company registers *capital increases*, thereby indicating the degree of *commitment* to the undertaking in the host country. Table 6.5 indicates the results abstracted from this information. It can be seen that for all three periods given, more companies *added* to their investment than did not. Hardly surprisingly this is more apparent for those

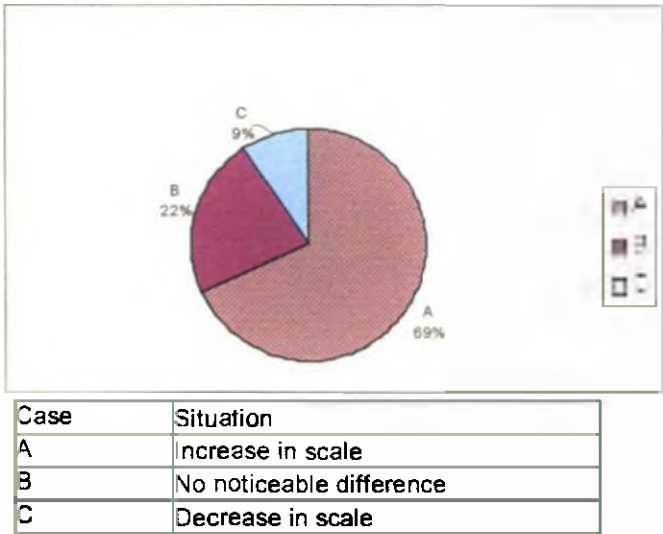
Taiwan affiliates approved in 1961-1970, but even those approved in 1981-1990 seem to be starting on the path previously traced by their predecessors. (The data purports to be up to the end of 1998). At any event, the figures are further testimony to the proactive and expansionary stance assumed by many investing LMEs. A similar degree of commitment is conveyed in the Interchange Institute's survey which shows that almost 70% of all Japanese investors have expanded their facilities since initially setting up (Fig. 6.10).

**Table 6.5      Registered Increases in Capital of LMEs in Taiwan**

Initial approval/ No. of Cases	1961-1970/ 37	1971-1980/ 31	1981-1990/ 42
<i>None</i>	<i>11</i>	<i>9</i>	<i>8</i>
1 time	2 x 1 = 2	5 x 1 = 5	11 x 1 = 11
2 times	4 x 2 = 8	4 x 2 = 8	10 x 2 = 20
3 times	5 x 3 = 15	4 x 3 = 12	9 x 3 = 27
4 times	5 x 4 = 20	2 x 4 = 8	2 x 4 = 8
5 times	3 x 5 = 15	4 x 5 = 20	-
6 times	4 x 6 = 24	2 x 6 = 12	1 x 6 = 6
7 times	-	-	1 x 7 = 7
8 times	2 x 8 = 16	1 x 8 = 8	-
Total times	100	73	79

Source: Derived from ZNK

**Fig. 6.10      Increase in Scale of Production Facilities since Establishment**



Source: Interchange Institute, *Koryu*, No. 595, April 15, 1999

**Fig. 6.11 Recent Cases of Withdrawal of Investments by Japanese LMEs in Taiwan**

LME (JE)	TMV (TC)	Industry
Sailor Pen	Yongruixing Gongye	Other Products (ball pens)
Takarabune Corp.	Sanshang Baochuan	Foods (cakes, snacks, etc)
Uyemura	Shangcun Maoyi	Chemicals (surface treatment)
Chugoku Pearl Chemical	Dahui Muye	Other Products (chopsticks)
Shigiya Machinery Works	Daguang Huosaihuan	Machinery (piston rings)
Tokyo Denpa	Datong Shijing	Electrical Machinery (quartz oscillators)
Onishi Iryo	Taiwan Zhenzhi	Textiles & Apparel (knitted sweaters)
Koizumi Apparel	Taiquan	Textiles & Apparel (denim, jeans, skirts)
	Baluman	(women's apparel)
Dai Nippon Toryo	Daritu Nanben	Chemicals (paint)
Funai Electric	Taiwan Xu Gongyi	Electrical Machinery (stereo speakers)
	Taiwan Chuanjing Dianji	(audio and telecommunications equipment)
Origin Electric	Taiwan Olisheng Gongye	Electrical Machinery
Fuji Kobunshi	Taiwan Jianfu Qiye	Other Products (kitchen cabinets)
Marutomo	Taiwan Wanyou	Foods (bonito)
Uniden	Taiwan Youli Dianzi	Electrical Machinery
Teika	Zhongguo Jinshu Huagong	Chemicals
Tokyo Ferrite	Zhongtai Qiangli Cishi	Chemicals

Source: Derived from ZNK

On the other hand, as the Taiwanese economy has developed and expanded there are concomitant cost increases for the foreign companies which choose to remain. There again, with the economic progress in the region as a whole, there are alternative venues which present to potential inward investors a choice of strategy. As a result, there has been some consolidation and even disinvestment by Japanese LMEs in Taiwan, sometimes associated with geographical restructuring of production networks. In his study of fourteen Japanese mainly large firms which had invested in Taiwan, Liu (1996, 1998) found that all but one opted for adjustment (rather than complete withdrawal) in one of three ways: upgrading, diversification, or consolidation. The cases of increased capital investment given in Table 6.5 and of production capacity in Fig. 6.10 surely reflect such actions. But that having been said, *complete withdrawal* from a venture is

an aspect of a changing, dynamic environment, and Fig. 6.11 lists the 16 LMEs which, according to ZNK, withdrew from ventures in Taiwan from about 1990 to 1998 (4).

#### **6.3.4 Material Sources and Market Destinations**

The concern of this chapter is not only with how Japanese LMEs have fared as investors in Taiwan but also the implications of this investment for their regional and possibly global activities. The objective, therefore, is to attempt to itemize the relationships and evaluate the degree of involvement at various levels. ZNK again offers one potential avenue for such an inquiry by listing the countries and regions from which the Taiwan affiliates recorded source the materials for production in Taiwan, and to which they ship the goods thus manufactured. Tables 6.6 and 6.7 are simple numerical data tabulations of sources and markets based on the multiple responses of the affiliates. With respect to *sourcing*, it would seem that Taiwan provides much of the basic materials while Japan exports to it the more sophisticated elements reflecting the division of labour originally intended for the Taiwan affiliate. Southeast Asia is also fairly significant, hinting – although not wholly convincingly – at a further compartmentalisation of production, with Taiwan occupying a pivotal role. The relatively heavy contribution of North America and Europe among those areas beyond East Asia suggests a necessary specialised input.

Turning to *shipments*, Taiwan itself is the leading recipient of what is produced. Japan is next, suggesting a strong element of complementarity between the two countries. Almost on the same level as Japan is Southeast Asia, thereby implying an important supplier role for the Taiwan affiliates within the region, as part of a broader LME strategy. The much stronger showing as markets (than sources) on the part of North America and Europe is likewise an indication of the use Japanese LMEs make of their ventures in Taiwan for onward sales over a wider sphere. The responses are recorded in the time order of affiliate establishment, to see if there would be any discernable change possibly reflecting different types of Japanese LME investing in Taiwan as the time sequence progressed. In fact there is not. The volume fluctuations, if they point to anything, simply keep pace with the investments made. What is evident, however, is the persistent positioning of the main players, with the one exception that China latterly has emerged as a market of consequence (Hu, 2000).

**Table 6.6 Sources of Materials for Taiwan Manufacturing Affiliates of LMEs**  
(multiple responses)

Source/ Establishment	1961-65	1966-70	1971-75	1976-80	1981-85	1985-90	Total
Taiwan	3	27	13	11	7	25	86
Japan	3	30	16	13	10	26	98
Southeast Asia	2	3	1	4	-	3	13
China	-	1	-	-	-	1	2
Asia (Rest)	-	5	-	1	-	2	7
<i>South Korea</i>	-	3	-	1	-	0	4
North America	1	7	2	6	4	7	27
<i>United States</i>	1	6	2	3	3	7	22
Latin America	-	1	-	-	-	1	2
Europe	1	10	1	5	2	1	20
<i>Germany</i>	-	4	-	2	1	1	8
Oceania	-	1	-	-	1	2	4
Africa	-	-	-	-	-	1	1

Source: Derived from ZNK

**Table 6.7 Markets for Taiwan Manufacturing Affiliates of LMEs**  
(multiple responses)

Market/ Establishment	1961-65	1966-70	1971-75	1976-80	1981-85	1985-90	Total
Taiwan	3	28	7	8	12	21	79
Japan	1	19	12	7	7	17	63
Southcast Asia	4	20	7	10	6	13	60
China	1	10	2	2	-	4	19
Asia (Rest)	-	7	4	2	1	2	16
<i>South Korea</i>	-	1	-	1	-	-	2
North America	1	16	10	5	4	9	45
<i>United States</i>	1	16	10	3	3	9	42
Latin America	-	3	-	-	1	1	5
Europe	-	12	8	3	4	1	28
Middle East	-	1	-	2	-	1	4
Oceania	1	4	1	-	-	1	7
Africa	-	3	3	-	-	-	6

Source: Derived from ZNK

**Key Points:**

- \* *LME FDI shows sectoral and temporal pattern, but similar to FDI in general*
- \* *labour and markets are key location factors, but technical capability also important*
- \* *confidence to re-invest and upgrade → limited withdrawal*
- \* *evidence of integration in (a) local/Japan sourcing, (b) regional exports*



## **6.4 Aggregate Analysis: Japanese LMEs**

### **6.4.1 Relevance of LME Investment in Taiwan to Regional and Global Settings**

In the above section, discussion has centred on Taiwan manufacturing ventures, otherwise known as registered corporations in which Japanese firms have invested. However, the ultimate subject of this thesis is not the Taiwan affiliate but the leading medium-sized enterprise (LME) in Japan which instigated the investment, that is to say the 110 LMEs derived from Japanese sources for the sample. So here the vantage point for observation shifts to Japan and the LME designing internationalisation strategy in which Taiwan is a single – albeit for the purposes of this particular study a core – component. The most prominent source for this is Kaigai Shinshutsu Kigyo Soran (Survey of Companies Investing Overseas, hereafter KSK). It is a consistent annual publication recording Japanese corporate investments worldwide which are still extant at the time of publication. That is, no mention is made of withdrawals. Nevertheless, by taking the edition for the year 2001 as the reference one can, among other things, surmise to an extent how durable the original Taiwan investments have been, which can in turn help in shedding light in the effectiveness of the Taiwan affiliate as a contributor to the LME's international strategy. Finally, the aspect of change is addressed and an attempt made to show how this affected the actions of specific LMEs. This is done by recounting each five-year stage from 1965 and 1990 of Taiwan's development from the Japanese corporate perspective and placing it in the context of a specific LME, which first invested in Taiwan during the stage in question, by means of a series of vignettes. These are designed to be less than case studies, but to add some texture and detail to the quantitative analysis of this chapter.

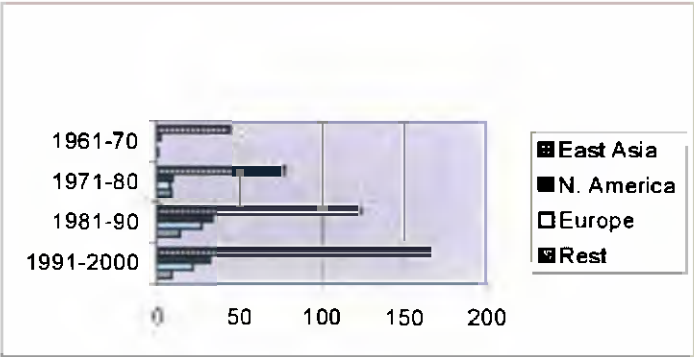
### **6.4.2 Japanese LME Investment Worldwide: A Comparison with MEI**

A lot can be garnered about the character of LME foreign direct investment worldwide by comparing it with the approach taken by a large transnational, and Matsushita Electric Industrial (MEI) has been selected for this purpose. Matsushita Electric Industrial boasts 45,485 employees in Japan alone (JCH, 1999:760). Worldwide, according to KSK, MEI has a total of 205 FDI ventures, 119 of them having a manufacturing content. The combined domestic (Japanese) workforce of the 110 sample

LMEs is not much more than twice that of MEI at 101,659 for an average of 924, meaning that the average LME in employee terms here is only fractionally more than 2% the size of MEI. The grand total of manufacturing ventures for the 110 LMEs is 582, while the designated sales offices number 275.

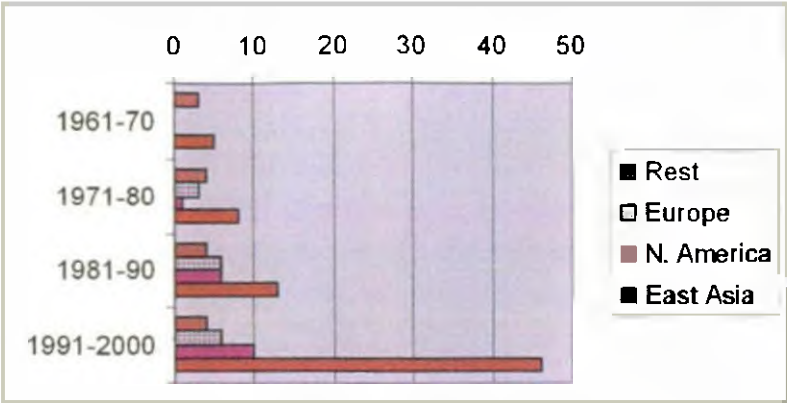
With reference to Figs 6.12 to 6.19, to start with a general comment covering all eight figures, both the LMEs as a group and MEI concentrate far more of their manufacturing ventures in East Asia than in the rest of the world combined, while conversely both have a considerably larger proportion of their designated sales ventures in the rest of the world than in the East Asian region. In percentage terms this translates into 71.4% for LMEs and 60.5% for MEI with respect to East Asian manufacturing ventures, and 65.0% and 68.6% for extra-East Asian sales ventures. (This keeps in mind, of course, the fact that many manufacturing units have a sales function while the reverse is not true for designated sales ventures.) The point to note is that even a huge multinational like MEI can have something of a regional bias; the hypothesis presented in this thesis (that the role of the region, here represented by East Asia, is crucial for LMEs and similar smaller firms in shaping their internationalising endeavours) should be interpreted in this light.

**Fig. 6.12      Sample LMEs: Manufacturing FDI from 1961 to 2000  
(number of manufacturing plants by region per decade)**



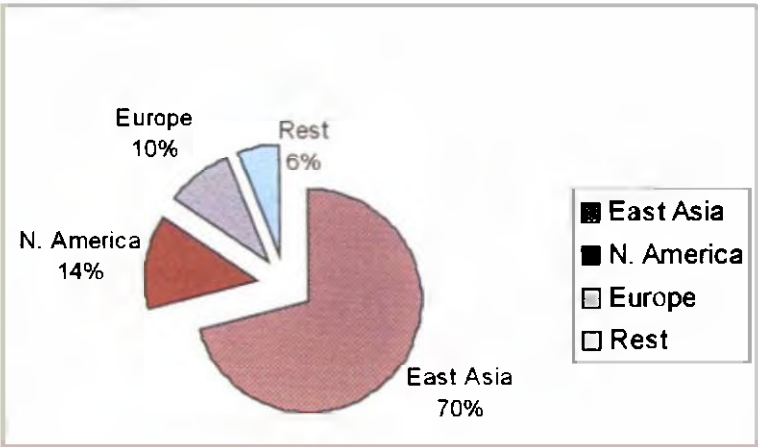
Source: Derived from *Kaigai Shinshutsu Kigyo Soran 2001* (Survey of Companies Investing Overseas 2001), Toyo Keizai.

**Fig. 6.13 ME1: Manufacturing FDI from 1961 to 2000**  
**(number of manufacturing plants by region per decade)**



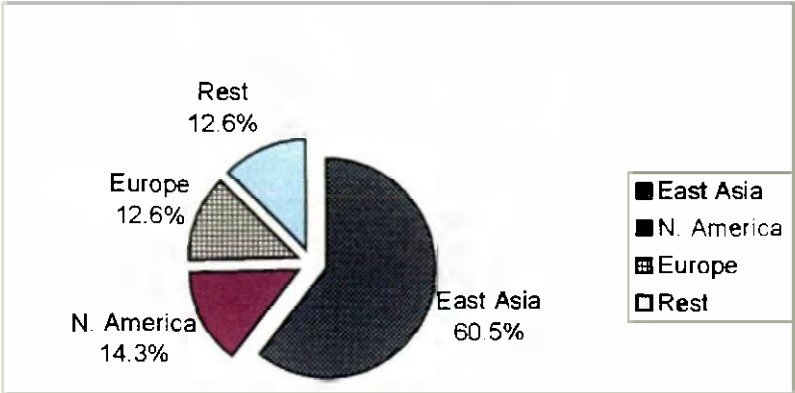
Source: Derived from *Kaigai Shinshutsu Kigyo Soran 2001* (Survey of Companies Investing Overseas 2001), Toyo Keizai.

**Fig. 6.14 Sample LMEs: Worldwide Manufacturing Plant Dispersal by 2000**



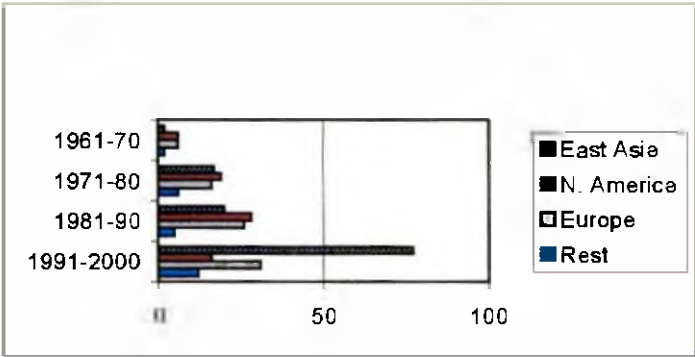
Source: Derived from *Kaigai Shinshutsu Kigyo Soran 2001* (Survey of Companies Investing Overseas 2001), Toyo Keizai.

**Fig. 6.15** MEI: Worldwide Manufacturing Plant Dispersal by 2000



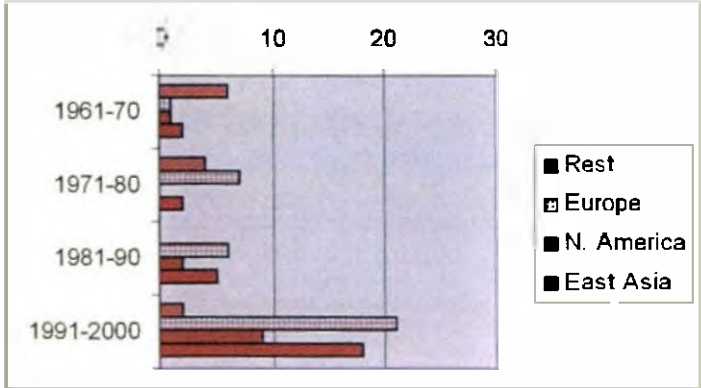
Source: Derived from *Kaigai Shinshutsu Kigyo Soran 2001* (Survey of Companies Investing Overseas 2001), Toyo Keizai.

**Fig. 6.16** Sample LMEs: Sales Office FDI from 1961 to 2000 (number of sales offices by region per decade)



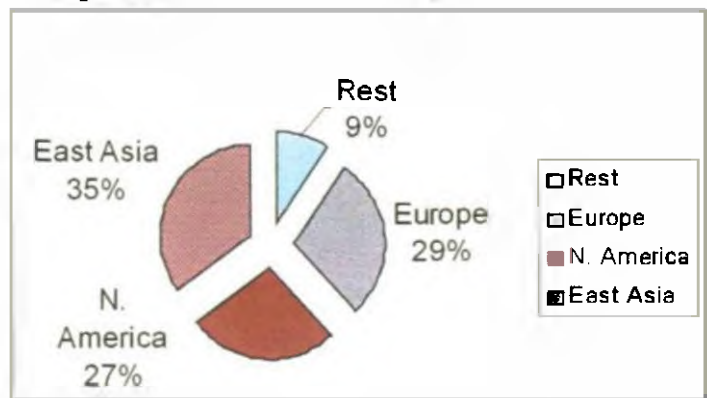
Source: Derived from *Kaigai Shinshutsu Kigyo Soran 2001* (Survey of Companies Investing Overseas 2001), Toyo Keizai.

**Fig. 6.17** MEI: Sales Office FDI from 1961 to 2000 (number of sales offices by region per decade)



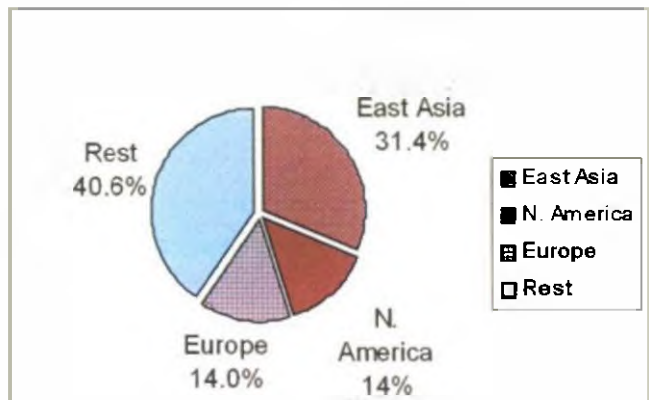
Source: Derived from *Kaigai Shinshutsu Kigyo Soran 2001* (Survey of Companies Investing Overseas 2001), Toyo Keizai.

**Fig. 6.18      Sample LMEs: Worldwide Sales Offices by 2000**



Source: Derived from *Kaigai Shinshutsu Kigyo Soran 2001* (Survey of Companies Investing Overseas 2001), Toyo Keizai.

**Fig. 6.19      MEI: Worldwide Sales Office Dispersal by 2000**



Source: Derived from *Kaigai Shinshutsu Kigyo Soran 2001* (Survey of Companies Investing Overseas 2001), Toyo Keizai.

Turning to manufacturing, the first thing to note is the asymmetry injected by the special position of Taiwan with respect to its preponderance among the LME ventures and in contrast to MEI. There are two reasons for this: first, because the starting point of this study is Japanese LME-invested ventures there are almost bound to be disproportionaely more of them than would be the case in a more general study; second, proximity and capability have made Taiwan an attractive location for many Japanese companies, as seen by the number of LMEs, but there is a limit to how much a *single* transnational would want to avail itself of this advantage (in terms of ventures as opposed to capital). In fact, it is pertinent here to emphasise that whereas the dispersion of MEI ventures reflects a centrally planned and implemented strategy by a single

corporation, or at most a close-knit group of companies, almost exclusively belonging to the same *keiretsu*, the 110 LMEs selected here are a set of diverse, unrelated entities with no one unifying reference other than being Japanese, and each individually operating on a much smaller scale with far fewer options than MEI. Actually, Taiwan largely accounts for the fact that the LMEs' manufacturing share in East Asia is substantially larger than MEI's, although China is rapidly changing the figures for both of them. Both the LMEs and MEI have advanced fairly steadily in the United States and Europe, with the LMEs revealing a strong preference for Britain in the latter possibly for language reasons. But if anything, since the middle of the 1980s LME inclination towards East Asia as a manufacturing location has strengthened. Thailand, Malaysia and Indonesia have all benefited handsomely from this. But contrasting China and the United States is the most revealing. By the mid-1980s the United States was getting a steady input of LME investment, which indeed soared over the next 15 years. On the other hand China's inward FDI from this source literally ballooned from zero in 1985 to the point that by 2000, for the four decades recorded, it had overtaken the United States to enjoy 14.9% of this LME sample's total worldwide FDI as against 12.7% for the United States.

**Fig. 6.20      Key Locations for Manufacturing FDI by LMEs and MEI by 2000**

<b>(a) LMEs</b>			
Worldwide		East Asia	
East Asia	70.6%	ROK	9.7%
ROK	6.9%	China	21.2%
China	14.9%	Taiwan	28.2%
Taiwan	19.9%	ASEAN	38.4%
ASEAN	27.1%		
United States	12.7%		
Europe	9.8%		
<b>(b) MEI</b>			
Worldwide		East Asia	
East Asia	60.5%	China	43.1%
China	26.1%	ASEAN	50.0%
ASEAN	30.3%		
United States	14.3%		
Europe	12.6%		

The apparent contrast between the LMEs and MEI as far as dedicated sales investments are concerned is that the former act to compensate for compromised reach by earmarking key hubs from which to project spoke-fashion to otherwise unattainable market targets, while the latter enjoys the relative luxury of spreading its presence over a much wider surface area. Hence the focalisation by LMEs on Hong Kong and Singapore in East Asia and on Britain and Germany in Europe, as well as the attention addressed to the U.S. market. MEI, on the other hand, is expanding on a matrix of production and sales activities which allows it flexibility in manoeuvring its assets in response to a changing environment, as witness its recent incursion into the transition economies of Eastern Europe and Russia. As with manufacturing in Taiwan, moreover, in that it is an essentially single entity MEI does not require a replication of effort in each of the four East Asian and European locations mentioned above to the extent exercised by the LMEs as a group, although it does seemingly share with them a predilection for these centres.

It is, needless to say, in the vast scope and variety of operations where MEI differs from the LME, and this can even be seen in its operations in Taiwan alone. MEI's first plant in Taiwan commenced operations in October 1962 (Ishii, 1992). Production was introduced in stages: radios in 1963, black and white televisions in 1964, refrigerators in 1965, and air conditioners in 1968. Thus, with the injection of the full gamut of technological know-how from Japan, did Taiwan Matsushita (hereafter TM) become an effective overseas subsidiary for a wide range of electrical appliances. The company has continued to grow since that time. In 1962 it had 113 employees, by the beginning of the 1990s 6,000. In 1993, TM's business amounted to NT\$24.8 bil, making it the tenth largest private sector company on the island (Liu, 1996:106). At the time of its 30<sup>th</sup> anniversary in 1992, TM had 41 directly owned service outlets, 5 repair shops, 41 business offices, and 600 special contract outlets, and it was still expanding. TM was also a global operator in its own right, its products selling in 111 countries worldwide (Liu, 1996:108). This capacity has then been wedded to a regional network spanning all the major manufacturing nations in East Asia, of which Fig. 6.21 is a skeleton illustration.

Then as globalisation has taken hold, MEI has redesigned TM's role as a spoke within the sphere of the group's operations. This has been much affected by the group's switch

in the mid-1980s from the multi-locally oriented 'little Matsushitas' strategy to the 'globalising Matsushita' strategy, which bases company thinking on international division of labour. In this process, the Japanese head office repositioned TM to function in three ways:

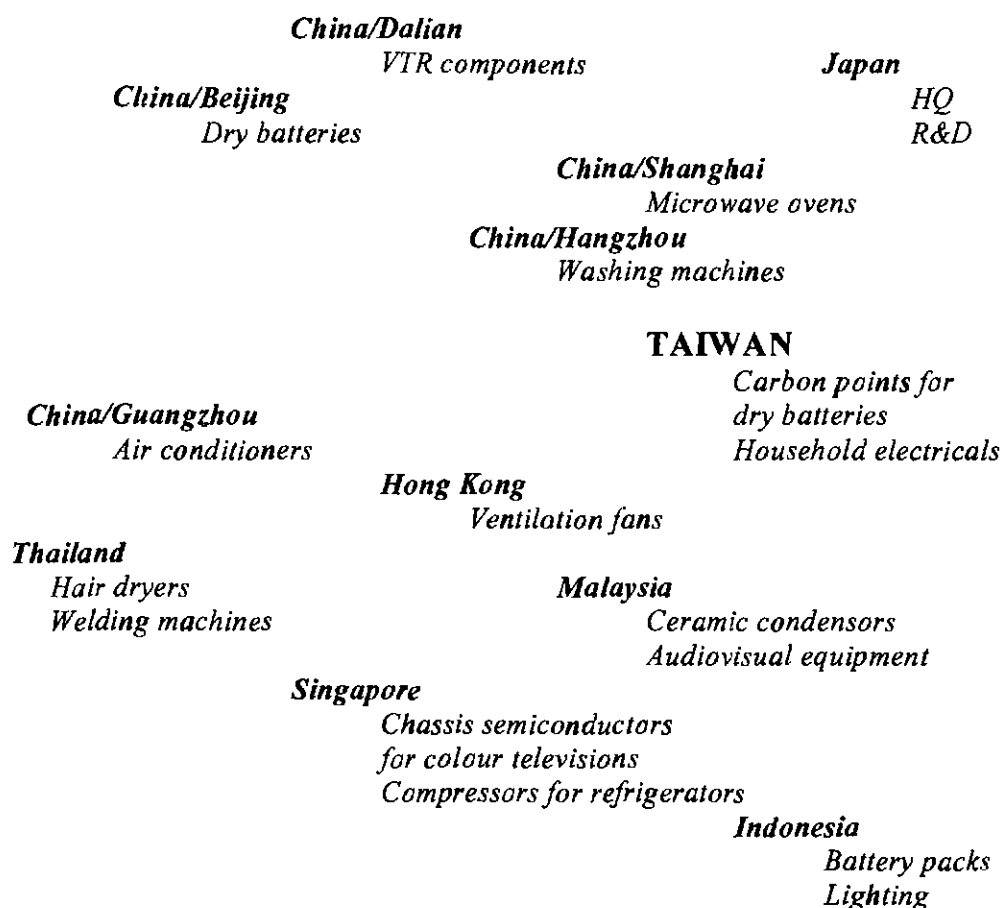
(1) *Collaboration*. Because of its personnel's relatively advanced technological skills and their common Chinese heritage, the Matsushita head office has coopted TM to work with it on other projects. The most significant of these being the inauguration of a plant in Xiamen, China where the group invested the capital while TM was responsible for the transfer of R&D.

(2) *Consolidation*. The group aims for optimal operation of its subsidiaries according to their particular attributes. This has meant that TM has been required to cede its production of electric irons to Malaysia, electric rice cookers to Thailand, and baking ovens to the Philippines.

(3) *Concentration*. Plants of enlarged scale have been introduced for two purposes. One is to provide the domestic market with bulky, seasonal items like refrigerators and air conditioners for which imports are negligible; the other is to produce electric motors and other electrical equipment for a global market (Liu 1996).



**Fig. 6.21 MEI: Placing Taiwan in the Regional/Global Strategy**



Source: Liu (1996)

**Key Points:**

- \* LMEs as a group have somewhat similar dispersal of overseas affiliates as a large TNC like MEI
- \* but LMEs have more focus on East Asia, especially Taiwan
- \* balancing capabilities/constraints, LMEs obviously have less scope/variety of overseas activity
- \* over time, LMEs show trend to investing more in U.S. and China, especially in last decade

### 6.4.3 Scope and Degrees of Proximity

Thus is the *globalisation* path of a very large, multifaceted TNC. LMEs, as individuals or as a group, cannot replicate this. To analyse how they do go about *internationalising*, therefore, it is now necessary to discard the comparison with the LME population and to assess LMEs as individual entities within the regional and global settings.

Figures 6.22, 6.23 and 6.24 show the scale of operations abroad by the sample LMEs in terms of the numbers of manufacturing FDI ventures they have as of 2000. In the first two of these Taiwan is included, so all 110 LMEs have at least one FDI venture, which means that according to Fig. 6.22 the 17 LMEs with one venture each have only one manufacturing direct investment abroad, and that is in Taiwan. On the other hand, the 13 LMEs in the second column each have two ventures resulting in a total of 26 ventures outside Japan, of which at least 13 will be in Taiwan (because *all* the sample LMEs have at least one venture in Taiwan). As mentioned above, the grand total of manufacturing ventures for the 110 LMEs is 582. Hence the average number of ventures world wide is

$$(A) \quad 582 \div 110 = 5.3$$

A few atypical LMEs have exceptionally large numbers of manufacturing ventures often due to the particular nature of their businesses; Hoya, for instance, with 29 ventures makes spectacle frames and has much more need than most for a local manufacturing presence. When these 'outliers' (which I define as firms with 12 or more different FDI venues) (5) are removed, then, there is a discernable drop in this average to

$$458 \div 103 = 4.4$$

Fig. 6.23 reveals in the first line that of the 110 LMEs, 25 of them had just a single venture in East Asia (either in Taiwan or another East Asian country other than Japan). It follows that

$$110 - 25 = 85 = 77.3\%$$

of the sample LMEs had more than one East Asian venture, most of which are outside Taiwan (6 LMEs in the sample each have two or more ventures in Taiwan). The average number of manufacturing ventures in East Asia (as defined above) per LME is

$$(B) \quad 411 \div 110 = 3.7$$

With the potentially distorting outliers removed again this average is reduced to  
 $339 \div 104 = 3.3$

**Fig. 6.22 Numbers of Manufacturing FDI Ventures per LME Worldwide as of 2000**

	No. of FDI ventures (a)	No. of LMEs (b)	Total no. of FDI ventures (a) x (b)
Mainstream	1	17	17
	2	13	26
	3	13	39
	4	17	68
	5	10	50
	6	9	54
	7	7	49
	8	8	64
	9	3	27
	10	2	20
	11	4	44
Sub total		103	458
Outliers	12	1	12
	13	1	13
	15	1	15
	17	1	17
	18	1	18
	20	1	20
	29	1	29
Total		110	582

**Fig. 6.23 Numbers of Manufacturing FDI Ventures per LME in East Asia by 2000**

	No. of FDI ventures (a)	No. of LMEs (b)	Total no. of FDI ventures (a) x (b)
Mainstream	1	25	25
	2	20	40
	3	15	45
	4	18	72
	5	10	50
	6	9	54
	7	3	21
	8	4	32
Sub total		104	339
Outliers	10	1	10
	11	2	22
	13	2	26
	14	1	14
Total		110	411

**Fig. 6.24 Numbers of Manufacturing FDI Ventures per LME outside East Asia by 2000**

	No. of FDI ventures (a)	No. of LMEs (b)	Total no. of FDI ventures (a) x (b)
	0	45	
	1	24	24
	2	17	34
Mainstream	3	13	39
	4	2	8
	5	3	15
	6	2	12
	7	3	21
Sub total		109	153
Outliers	18	1	18
Total		110	171

As for Fig. 6.24, the most important finding is that 45 LMEs, or 41%, do not have any FDI ventures outside the East Asian region. Moreover, of the 65 (59%) that do, 24 of them, or 39.9%, only have one extra manufacturing venture beyond East Asia. In consequence, the average number of manufacturing ventures outside East Asia for the sample LMEs is

$$(C) \quad 171 \div 110 = 1.6$$

And even with only a single outlier to remove, it still falls significantly to

$$153 \div 109 = 1.4$$

If on the other hand the average is limited to those 65 LMEs with an extra-East Asian presence, there is quite an increase to

$$171 \div 65 = 2.6$$

**Key Points:**

- \* *LME sample shows that most still have limited FDI presence → av. 5.3 projects, although some much more*
- \* *main arena for investment still East Asia → 40% confined to the region*
- \* *as such they present an argument for regional integration via FDI*

#### **6.4.4 Taiwan as the First Venue in Internationalisation of Japanese LMEs**

The above is an explicit statement giving credence to the significance of proximity in general. What is more, this line of argument can be taken further because according to the dates given in KSK, Taiwan was the *first manufacturing FDI location* for no less than 74, or 67.3%, of the 110 sample LMEs. Of the remaining 36 (32.7%), 23 (20.1%) were accounted for by other countries in the East Asian region: ROK (8), Hong Kong (3), Thailand (6), Singapore (3), Malaysia (2), and Indonesia (1). With respect to the 13 beyond the region, the United States with 8 was the standout, while Germany, Belgium, Brazil, Australia and India had one each. Manufacturing aside, Taiwan was also the *first location for any form of FDI* for 59, or 53.%, of the sample. As has been emphasised earlier, the nature of this survey makes the bias towards Taiwan inevitable. The obvious point of comparison is South Korea, but its policy towards inward investment was not nearly as positive as Taiwan's. The figures here suggest, and plenty of evidence from elsewhere can corroborate the fact, that the ASEAN countries were later to industrialise than Taiwan. And to take the extreme case, by not opening its doors until 1978, no less than 14 years after Taiwan had reversed policy, China is in no position to lay claims to the role Taiwan has played as the initial testing ground for Japanese LMEs moulding their emerging internationalisation strategies.

#### **6.4.5 The Passage of Time with Illustrative Vignettes**

To this point in the account, the individual LME has been an average. To see how well the argument fits we have to turn to the actual firm. This is, needless to say, the subject of the following case study chapter. However, it is also possible to illustrate the approaches taken in a general manner accompanying the unfolding of events. The message derived from the account in Chapter Five is that, in particular since the conversion to an export orientation, Taiwan's economy has undergone considerable growth and, therefore, change. The same drama, as Chapter Four makes clear, was also being played out in Japan, albeit at some stages removed in terms of overall progress. It follows that how Japanese LMEs viewed Taiwan and what they could achieve there in the mid-1960s differed markedly from what they saw by the beginning of the 1990s. As has been shown, the same three areas of industry were constantly to the fore, so that rather than industries *per se*, the elements which hold the key to understanding the

LMEs' perceptions are the enhancement of technological capabilities on the part of the Taiwanese, the expansion and elaboration of the Taiwanese economy as a whole during the period, and what implications these two factors had regarding the progressive integration of the Taiwanese economy and its component business parts with the East Asian region and the world at large. So, in the vignettes which accompany the brief descriptions of the time stages below, there is no discernable elevation proceeding up a hierarchy of industries. Rather, the intention is to show what strategic options certain representative LMEs availed themselves of, given their own disposition and the prospects, Taiwan presented to them at any specific time. The data is drawn from the published sources already cited and from corporate publications, websites and the financial press.

### ***1965-70***

As has been noted, one of the immediate outcomes of Taiwan reversing course and seeing FDI as an engine of export expansion and therefore economic growth in general was the arrival of large TNCs, notably from America and Japan, and particularly those manufacturing household electricals and other household goods. Setting up shop at this early phase were Canon and Ricoh for manufacturing cameras, Hitachi for televisions, Mitsubishi Electric for audio units, and Sony for telephones. Costs, especially in the form of inexpensive labour, were a compelling factor for these firms, although the Taiwanese domestic buying power for these products was starting to show too. Pushing down costs was also the preeminent concern of a host of smaller Japanese firms who saw in Taiwan the means for retaining under their wing their maturing, labour-intensive lines. This is the time when the sewing machine maker Janome\* ([www.janome.co.jp](http://www.janome.co.jp)), for example, brought its low-end manufacturing to Taiwan. But even at this early stage, the emplacement of TNCs, the accelerating economic orientation of the authorities, and labour which was not just inexpensive but also relatively well-educated was already attracting the specialist firm: Nippon Piston Ring (piston rings), OSG (precision cutting tools), and Mitsumi (polyvariable condensers).

### ***Vignette 1: Mitsumi Electric***

Website: [www.mitsumi.co.jp](http://www.mitsumi.co.jp)

Head Office: Chofu, Tokyo

Established: 1954

Sources: Nakamura (1990), company website and catalogues, ZNK, JCP, KSK

Investment in Taiwan: 1967

Employees in Japan: 1,685

Employees in Taiwan: 350 (1,220)

Mitsumi Electric encapsulates the interconnecting threads of the Japanese LME, the role of Taiwan, the multinational region and globalisation that constitute the leitmotif of this thesis. Established as a radio and television parts maker in 1954, it had as its main product the polyvariable condenser (polyvaricon) developed by its founder and president Hajime Moribe. The polyvaricon was incorporated into almost all transistor radios made in Japan and exported to Philips and General Electric. This was enabled by Mitsumi being among the first LMEs to establish a mass production system based on its own technologies employed to upgrade quality while reducing costs. Mitsumi had its stocks carried on the Tokyo over-the-counter market in 1960, thereafter being listed on the Second Section of the Tokyo Exchange in 1961, and the First Section in 1967. The Moribe family is still prominent today; Itsuo Moribe is president and CEO, while Hitomi and Shigeru Moribe occupy two of the vice-presidential posts.

*Mitsumi Electric's first production base abroad was in Taiwan.* This was Taiwan Mitsumi, inaugurated in 1967. What followed was a process of articulation as the company moved in incremental steps to internationalisation. With respect to manufacturing, first its position was further consolidated in Taiwan with the opening of Taipei Mitsumi in 1969, followed by a second factory for the latter in 1974. While Mitsumi Electronics Singapore started in 1972, attention really turned to ASEAN countries from the mid-1970s and then on into the 1980s: two factories in Malaysia (one more in 1994), two in the Philippines, and one in Thailand. Perhaps reflecting the differences in attitude to inward FDI and Japanese colonial rule, the other country in closest proximity to Japan, South Korea, was only added in 1987. This was also the year that the only non-East Asian manufacturing base was established, in the United Kingdom. The 1990s saw the turn of China, with factories in Zhuhai, Qingdao and Tianjin. Before any overseas manufacturing had commenced, however, a representative office had been opened in New York in 1961 and a sales office in Hong Kong in 1964. Nevertheless, the overseas production/market paradigm as it has evolved over the past

four decades is quite clear: 15 of the 16 factories are in East Asia, of the 20 sales offices half are in the United States (7) and Europe (3). While the company's most important overseas market was addressed very early on, overseas production commenced very near the home base, in Taiwan. While the company's headquarters and main R&D centre have remained in Japan, the Taiwan operations have also upgraded their own technological proficiency over the years. The initial plant, for example, has as a result of its accumulated capabilities now begun to manufacture high value-added products, including interactive cable television sets.

### **1971-75**

Although, as discussed in Chapter Five, this was the time when Taiwanese survival was on the line, actually what concerned an increasing number of Japanese firms was their own predicament given rising costs in Japan. This was especially so with respect to wages because an expectation had taken root among the Japanese workforce that their income, which for the larger companies and many of the smaller ones too was automatically hiked annually, keep pace with GNP which galloped at over 10% for most of the 1960s. Added to which was a growing perception of what the outside world could offer and how it could be accommodated. This is why Daiwa Seiko was in Taiwan even before the so-called Nixon Shock (which raised American duties on a wide range of Japanese goods), the introduction of floating exchange rates (which saw the value of the dollar plummet against the yen), and the first oil shock. All of these occurrences further exacerbated the situation of crisis for many Japanese firms, whose first instinct may have been to seek relief in a geographically proximate but economically more favourable location.

#### ***Vignette 2: Daiwa Seiko***

Website: [www.daiwaseiko.co.jp](http://www.daiwaseiko.co.jp)

Head Office: Higashi-Kurume, Tokyo

Established: 1945

Sources: Company domestic and overseas websites and catalogues, ZNK, JCP, KSK

Investment in Taiwan: 1971

Employees in Japan: 1,187

Employees in Taiwan: 550

Daiwa Seiko is a maker of sports goods seeking to transform itself into a



comprehensive supplier. Over the past fifty years it has advanced in this direction through a logical progression, starting with fishing tackle, and then on to golf gear, rackets for tennis, squash and badminton, through to mountain bikes and sports wear. Its 'first decision' came ten years after its founding as Matsui Seisakusho – Yoshiyuki Matsui is the current chairman – when it embarked on the manufacture of fishing reels. At that time domestic demand was limited for what was essentially a luxury item and production was for export. In other words, Daiwa Seiko, as the company became, was very conscious of its international markets in advanced countries from the moment its core competence was defined; domestic sales of the reels only started in 1962. According to its Japanese website, by 1977 it was to become the world's top seller of fishing tackle, a position it maintains to this day.

Before that, in 1966, Daiwa had established its first overseas manufacturing and sales base where its paramount *market* existed, in the United States. Taiwan was to follow in 1971. But the fact that the factory of Daiwa (Taiwan) Corporation is located in the Nan-Tze Export Processing Zone is significant in two ways. First, it is a perfect illustration of a Japanese LME taking constructive advantage of Taiwan's government-inspired export promotion environment. Second, Taiwan was designated by the company as a *production* site. This market/production pattern was subsequently repeated. First, in 1977, a manufacturing and sales base was set up in Scotland, while nearly 20 years later, in 1995, the need for cheaper production in the face of mounting competition inspired the establishment of Daiwa Thailand. The remainder of the international framework as it has evolved is all market-oriented, with sales bases in Australia, Germany and France. While manufacturing of all products is still strong in Japan, Daiwa takes active advantage of professional fishing consultants in the United States of Europe, for example, in a further division-of-labour refinement aimed at market substantiation. Within this setup, Daiwa Taiwan, unlike the the home base in Japan and the production affiliates in the other advanced countries, specialises in the manufacture of fishing rods only for a worldwide market, but especially the United States and Japan.

### **1976-80**

The character of the 1970s as whole, and especially in the second half as Taiwanese government policy and industrial standards became more demanding, is best epitomised

by the influx of Japanese intent on providing an increasing number of Taiwanese firms as well as Japanese with equipment, components and materials which local industry was as yet largely unable to effectively produce. In other words, this was an intensification of what had started in latter half of the 1960s. Casio Computer started producing cases, rings and backs for watches, Sanyo Electric transistors and integrated circuits, and Takeda Chemical rubber latex and sheet molding compounds. It is in this sector – by now heavily export-oriented – and at this time, that investment by Japanese LMEs became considerably stronger. But some large firms were starting to turn more of their attention to the local market itself, as with Chugai in pharmaceuticals, Ajinomoto in frozen foods, and Bridgestone in tyres, plus also the LME Fujitec.

***Vignette 3: Fujitec***

Website: <a href="http://www.fujitec.co.jp">www.fujitec.co.jp</a>	Investment in Taiwan: 1980
Head Office: Ibaraki City, Osaka	Employees in Japan: 1,431
Established: 1948	Employees in Taiwan: 250
Sources: Company website, catalogues and newsletter, ZNK, JCP, KSK	

As early as 1964, according to a brochure celebrating Fujitec's 50<sup>th</sup> anniversary, founder and now honorary chairman Shotaro Uchiyama stated: "The world is a single market. In today's economy, I believe the key to our great success is to embark on an aggressive strategy to take business to the global market." By 1997, and with much international experience having been accumulated, the same publication quotes him as saying: "In order to win in this fiercely competitive age, it is important for us to effectively implement a '*Glocal Management*' for the synergy of both globalisation and localisation." (My italics).

The nature of the product and the activities attendant upon it provide the clue to this strategy of conjoining the global and the local and the position in which the Taiwan operations are placed as a consequence. Mr. Uchiyama established Fujitec in 1948 for the research and development, manufacturing, sales, installation and maintenance of elevators. Over time the business has also taken on escalators and multistory parking systems. The company has evolved to the point that it now has what it calls a 'World Five-Pole Management Structure', which entails dividing the world into five blocks, each having its own headquarters thus: America, Europe, South Asia, East Asia, and

Japan. The company's global approach is also reflected by the fact that, in addition to Tokyo and Osaka, it is also listed in Singapore and Luxemburg. As far as the local is concerned, on the other hand, proximity to the market for services ancillary to production and the existence of, or imminent potential for, high-rise construction are what Fujitec requires for it to invest. Hence, its first production base in Asia was Hong Kong, established in 1964. This was followed by South Korea in 1968 and Singapore in 1972. In the wider world, with Fujitec America Inc. having been set up in 1977, the company built the world's largest elevator production plant in Lebanon, Ohio in 1982. Being set up in 1980, the affiliate in Taiwan was halfway along the chain of development in East Asia, to be followed by plants in Indonesia and China. It is subject to the East Asian headquarters in Hong Kong, and so has no outstanding regional role, although ZNK records that it sells worldwide. But clearly, the reason why Fujitec set up in Taiwan was that the Taiwanese economy itself, because of its economic development, now represented a *market*, and one sufficiently developed to support domestic production. Again, the company headquarters and R&D remain in Japan, from where regional and global strategies are co-ordinated.

### **1981-85**

The early stirrings of competition in labour-intensive industries within the East Asia region plus the simple desire to enhance industrial status proved the motivating forces for upgrading the Taiwanese economy, a process symbolised by the inauguration of Hsinchu Science and Industrial Park and given further impetus by the return of successful Taiwanese entrepreneurs from Silicon Valley and other Californian bases. This indigenous input was in time to be influential in the establishment by the likes of NEC, Toshiba and Mitsubishi Electric of semiconductor R&D departments, reflecting a general trend of earmarking Taiwan for specific R&D work. At the same time, the investments tended to be tightly controlled with closely defined objectives, often looking inward to the immediate market. A case in point is NEC's venture, started in 1982 for the manufacture and sales of computers and communications terminals to clients in Taiwan. The island was thus beginning to suggest a growing variety of options for investors. With the addition of an emerging global consciousness, technology-intensive LMEs could begin to see it in increasingly sophisticated strategic

terms because of its potential as an expanding domestic market *and* as a node in a campaign of internationalisation, as illustrated by Uni-Charm.

***Vignette 4: Uni-Charm***

Website: <a href="http://www.unicharm.co.jp">www.unicharm.co.jp</a>	Investment in Taiwan: 1984
Head Office: Minato-ku, Tokyo	Employees in Japan: 1,434
Established: 1961	Employees in Taiwan: 265
Sources: Company website, ZNK, JCP, KSK	

Uni-Charm is one of Japan's leading manufacturers of sanitary napkins and paper diapers. Its commencement of operations in 1961 coincided with the very early stages of growth in domestic consumer spending, this being just before the Income Doubling Plan announced by then prime minister Ishida. It has just recently gone through its first generational succession with the post of president being passed from Keiichiro Takahara to his son Takahisa Takahara. The company enjoyed growth domestically as the Japanese economy expanded and now commands market shares there of 30% for both the above end-user products.

Uni-Charm only ventured abroad as a manufacturing investor for the first time in 1984, and when it did so it was to Taiwan. In fact, the company's website categorically states that *Taiwan was consciously selected as its first overseas base*. This was a joint venture, called United Charm, with Uni-Charm of Japan holding just over 50%. Its success can be gauged by the fact that the affiliate's capital was raised no less than six times over the following twelve years. Further manufacturing plants were to follow, initially all in East Asia: Thailand in 1988 and 1996, South Korea in 1994, China in 1995, and Indonesia in 1997. Additionally, in the 1990s sales operations were started up in Singapore, Malaysia, Vietnam and Mongolia. Once this East Asian network was well underway, Uni-Charm turned its attention with regard to manufacturing to the West, starting with the Netherlands – where it now has three plants – and the United States, again in the 1990s. The fact that Taiwan's economy was reaching a stage of purchasing power similar to that experienced by the company in Japan was apparently a point of attraction for the company. But more importantly, it would seem that Uni-Charm looked upon Taiwan as a testing ground for the internationalisation of products and production techniques, because of its various aspects of proximity. Growth of the

Taiwanese market itself then afforded a cushion for initial experimentation. Although United Charm covers a wider range of production than other overseas affiliates and exports to Southeast Asia, its primary function – having acted as a stepping stone for Uni-Charm’s internationalisation via regionalisation – is to service the Taiwanese market.

### ***1986-90***

The impact of the Plaza Accord of 1985 between the G5 nations struck with full force two years later. The value of the yen had by then doubled against the dollar. This meant that many Japanese firms had both to relocate production abroad to remain competitive and also effectively to withdraw from areas where the competition had become too assertive. Compared with a decade earlier, however, relocation – especially within the East Asian region – could be contemplated with greater equanimity because of the growing capability and receptiveness of the component countries, most notably and recently China. While the New Taiwan dollar also rose precipitously against the US dollar and this implication for export costs was further exacerbated by substantial wage hikes, Taiwan successfully staked its claim on competencies which set it apart from most of its Asian neighbours. This contributed to a refinement of the division of labour within the region to which Japanese investors responded massively. Thus did Japanese manufacturers encompass Taiwan within their emerging internationalisation strategies as Taiwan itself embarked on redefining its position in a newly globalising environment. One result of this was that Japanese firms could set up in Taiwan not only to service local requirements as a link in the chain of export-oriented manufacturing but also to use it as an extension of Japanese production, which is essentially what Okazaki Manufacturing did.

#### ***Vignette 5: Okazaki Manufacturing***

Website: [www.okazaki-mfg.com](http://www.okazaki-mfg.com)

Head Office: Chuo-ku, Kobe

Established: 1954

Sources: Company websites and catalogues, communications with Mr. Trevor H. Neve (managing director of ARi Industries (UK) Ltd.), ZNK, MKB, KSK

Investment in Taiwan: 1987

Employees in Japan: 271

Employees in Taiwan: 20

This firm commenced its existence as Okazaki Trading Company Limited for the import and sales of thermocouples and resistance wires from Hoskins Manufacturing Company and bimetals from W.M. Chace Company, both of the United States. Its 'first decision' came when it started manufacturing thermocouples in 1959. Thereafter, in 1966, it constructed its Akashi factory where the pulse of the company's manufacturing remains. It is from there that are shipped "the core of the temperature control for all kinds of industries, including power generation, gas, petrochemicals, food and drugs, steel and semiconductors" (latest catalogue). To this day it is "not listed on any stock exchange; it is a private company solely owned by the Okazaki family" (Mr. Neve, November 9<sup>th</sup>, 2001). It is these two factors, Okazaki's strict focus on its core competence of temperature measurement and heating plus the tight family control, that have dictated its dealings with the outside world.

In 1972, Okazaki concluded a technical assistance and licensing agreement with ARi Industries of the United States which enabled it to manufacture mineral insulated cables in Japan. Subsequently, in 1980, Okazaki bought out ARi industries, thereby acquiring the latter's accumulated technology and production facilities, along with its sales network in the United States, Canada and Europe. Using that name, it then established ARi Industries (UK) for manufacturing to serve the European market. Okazaki's first association with production in East Asia was through a technical know-how licensing agreement for the production of thermocouples with a company in China in 1985. Okazaki Manufacturing (Taiwan) did not come on the scene until 1987. But when it did, it was with very specific intentions. First, it was located in the Kaohsiung EPZ, thereby implying that much of its output would be for export. Second, as noted by Mr. Neve (November 29<sup>th</sup>, 2001): "Taiwan produces, almost exclusively, standard mineral insulated cables in a high-volume production unit. The same product can be made in Japan and the USA, however, the specifications and consequently the costs are invariably higher ... These cables are purchased by ARi (UK) from Japan and the USA even if the original manufacture was in Taiwan." The Taiwan affiliate is now the world's leading producer of thermocouple and conductor mineral insulated cables. In its internationalising strategy, therefore, Okazaki pinpointed Taiwan for *production*, but far from being production based on cheap costs, this was production based on the island's burgeoning technological capabilities which afforded it a ranking above most

of its East Asian neighbours, if still below Japan and the United States. Thus was the Taiwan affiliate from the outset allocated a global role which essentially leapfrogged the region.

**Key Points:**

- \* some of distinctiveness of LME internationalisation now apparent → ie, favouring proximate location (Taiwan) for both production- and market-led FDI*
- \* but also apparent is gradual evolution of LME networks → often gives Taiwan an 'upgraded' role*
- \* also see variety of LME behaviours induced by timing of investments + nature of individual LME*

## **6.5 Summary**

An aggregate sample was constructed from Japanese and Taiwanese sources which comprised 110 Japanese LMEs, to each of which is attributed *one* Taiwan manufacturing affiliate (TMA). Of the LMEs in Japan, about 80% are listed and 20% unlisted; some 70% can be classified as intermediary suppliers, 30% as end-user product manufacturers. The process of designating Japanese LMEs started from the Taiwanese side and this was then checked against data deriving from Japan. This resulted in summary profiles detailing the essential data for each LME and its TMA. Knowledge of the Japanese language is indispensable for this part of the research, both for gleaning general information from most of the sources given and for tracking company/affiliate names.

In first comparing investing Japanese LMEs with investing Japanese firms in Taiwan in general for the period 1961 to 2000, it was found that there were marked similarities. In both cases there were significant sectoral concentrations on electrical and electric appliances, chemicals and machinery, and a similar temporal distribution. They both valued the technical competence of the local workers and the role of Taiwan as an

export base, though the LMEs seemed to value the technical capabilities available in Taiwan more. They expressed confidence in Taiwan over time by increasing their outlays, although some had opted for withdrawal. In addition, the LMEs demonstrated a discernable integration involving their TMAs, sourcing both locally and from Japan and exporting to Southeast Asia, for example.

Turning to the perspective of the internationalising LME in Japan, a comparison was first effected with Matsushita Electric Industrial (MEI), a company some 50 times larger than the average sample LME. The aggregate sample and MEI both showed similar patterns and even similar trends in the geographical dispersal of manufacturing and sales activities worldwide, although the LMEs' concentration in East Asia is more pronounced. The real difference is revealed when the average LME as a single entity is contrasted with MEI; the former's FDI ventures amount to less than 5% of the latter's. Although the LMEs as a group have a wide geographical dispersal, individual LMEs have more limited dispersal in Taiwan, other East Asian countries and then the rest of the world, though 40% of the population have no presence outside East Asia by 2000.

Moreover, the relationship between the *aggregate* sample of LMEs with Taiwan is strong. For no less than 74 of the 110 Taiwan was the first manufacturing FDI experience, thereby suggesting the powerful attraction of proximity when LMEs first seek to enlarge their markets or escape rising costs at home. However, the illustrative vignettes imply a more nuanced progression. The foregrounding of the individual LME with its own specific agenda illustrates the variety of approaches taken and of Taiwan's assigned role. It shows examples of affiliates upgrading their technical capabilities and gaining a global role, of others in more modest local market serving roles, and of yet others which are given a specific strategic role from the start.

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### *Notes*

(1) The 110 firms are all Japanese manufacturing LMEs with at least one subsidiary/affiliate in Taiwan, set up between 1961 and 1990, and selected according to criteria and from sources discussed in the text. They constitute the best estimate of the population of Japanese LMEs inasmuch as they represent the number sourced in ZNK and confirmed in JCH/NKJ or MKB and KSK. However, the record in ZNK is almost certainly incomplete, and it has not been possible to confirm the status of some firms given in ZNK through the Japanese sources.

(2) These are cases of investment, so the same Japanese company may have made more than one, involving different Taiwan-based subsidies and/or joint ventures. Hence, according to this survey, Hitachi, Ltd. has three investments in companies operating as discrete entities, the English names being Taiwan Hitachi, Taiwan Television Enterprise, and Hitachi Asia.

(3) This is not to say that things are totally smooth. An idea of the differences that can emerge can be gained from Okuyama (1995).

(4) It should be noted that, even here, this may not mean total withdrawal by the Japanese LME from Taiwan because it may, as in the case of Sailor Pen, the first company listed, have more than one venture in operation, either independently or with partners.

(5) The LMEs with larger numbers (10 – 12) of overseas ventures are not in the main more advanced along the path of internationalisation than those with fewer, nor do they have a longer history of internationalising. Rather, they tend to be firms in markets where a more decentralised global presence, to a more local market orientation with a smaller scale of production is a requirement of the articulation strategy.

## Chapter Seven

# **Japanese LMEs as Investors in Taiwan and Beyond: Case Studies**

### **7.1 Introduction**

The various aggregate data presented in the previous chapter gave a picture of the distinctive sectoral/temporal pattern of Japanese LME FDI ventures in Taiwan and an indication of motives for choosing Taiwan (often as the 'first choice – first time' location for FDI). In addition, it imparted the impression that regional bias remains typical of the international production systems of Japanese LMEs as they continue to internationalise, though while remaining firmly rooted in Japan for key corporate functions. The changing use they make of Taiwan as an upgraded production location and export platform is also made apparent. Some specific qualitative studies now follow. Prior to that is a brief justification for the case study which is succeeded by an account of the means of approach to potential case study companies and the arrangements made as a result. All the case studies comprise LMEs extracted from the aggregate sample of 110 firms, so that a chain of evidence is constructed constituting interconnecting quantitative and qualitative elements. The case study outlines each follow the same format comprising a synopsis and general description of the company, its LME character, its international process, the particular role of Taiwan in that process, and its articulation approach with reference to a characteristic articulation attribute.

### **7.2 Methodology Note**

#### **7.2.1 The Qualitative Component: The Essence of the Case Study**

The case study has been described as a research strategy involving the empirical investigation of a contemporary phenomenon within its real life context (Yin, 1981; Robson, 1993). This strategy "focuses on understanding the dynamics

present within single settings" (Eisenhardt, 1989:534), and as such the case is investigated in its own right, not as a sample of a population. The case study copes with a distinctive situation with many variables and relies on multiple sources of evidence. Yin (1994) states that a singular difference between the case study and related methods, notably ethnography and grounded theory, which "deliberately avoid specifying any theoretical propositions at the outset of an inquiry" (Yin, 1994:27), is that preliminary propositions are developed before the data collection commences. This thesis presents a variation of this approach, whereby information and theoretical constructs regarding LMEs, globalisation, and the roles of the region and the state, together with various aggregate data has been compiled and analysed to elicit propositions which are then employed as guidelines for conducting five case studies.

### **7.2.2 The Course Taken**

#### ***(i) Preliminary Approaches to Potential Case Study Firms***

It is often claimed that the Japanese are more receptive to contact made via introductions than being directly approached. Having in the past lived in Japan for a long time, I think this has its limitations. Nevertheless, during the time that the general data was being put together attempts were consistently made to contact any of the 110 sample LMEs by way of acquaintances, academics, institutions (like Nomura and JETRO), and journalists and other professionals. It is to be noted, though, that this was always with the ultimate intention of following the procedure outlined below, whatever turned up in the meantime. In the event, one very useful contact was effected by an acquaintance, an influential businessman in Kaohsiung who was a friend of the Taiwanese vice-president of Kaohsiung Mabuchi, one of two affiliates Mabuchi Motor has in Taiwan. It was decided to make this a test study and an interview took place in Japanese with the Japanese president, the Taiwanese vice-president and others. However, the sense of obligation on the part of the Mabuchi executives was to the Kaohsiung businessman. That having been fulfilled, it was not possible for me to go further. Such reliance on the link-up of disparate individuals, even when sincere – or especially when sincere – can have unforeseen results and take unpredictable

turns. One can, for example, be led up false alleys of inquiry which, because of the obligations already incurred, are difficult to extricate oneself from and much time and effort is wasted. This contrasts markedly with atmosphere of commitment on the part of the four other case studies as described below. These companies, *on their own volition*, chose to respond constructively to an out-of-the-blue request for information made formerly by an unknown party, based on the quality of the approach. That having been said, enough information is available about Mabuchi to include it as a case study for comparative purposes.

### ***(ii) Course of Data Collection at Case Study Level***

1. In preparing the general information as presented in Chapter Six, it was noted that 35 of the 110 Japanese LMEs with affiliates in Taiwan also had affiliates in the United Kingdom. As I am British and am writing this thesis at a British university, I thought it would seem logical to these 35 firms that I would approach them in the UK. It would also be more likely that contact would be made with a British management which tends to be more sympathetic than Japanese management to such research requests, or with a Japanese management aware of the need to act in a British manner. Consequently these companies were approached by letter (see Appendix) for catalogues and other written data (to be posted to my UK home, which I was visiting for a month). This yielded materials from nine companies. Follow-up telephone calls brought in an additional eight for a total of 17, constituting potential candidates for the case studies.

2. On returning to Taipei, I produced a letter and questionnaire in English (see Appendix). These were then translated into Japanese by a professional Japanese translator (most top-class translation is done by a native speaker *into* his/her own language). As a professional Japanese-to-English translator I then checked this to ensure accuracy. The questionnaire (Appendix, item 4) was intentionally highly detailed for the following reasons. First, it was to indicate the seriousness of the researcher and the knowledge and understanding already attained. Second, although such detail would deter the majority of companies approached from responding, it was reckoned that the few that did respond, *just because they*

*appreciated the detail that had been achieved*, would be that much more committed in their accommodation.

3. The English and Japanese versions were sent by facsimile to the 17 Taiwan affiliates of the Japanese LMEs also having affiliates in the UK which had sent me materials, plus to all other Taiwan affiliates with Japanese (as opposed to Taiwanese) managing directors as documented in KSK, for a total of 59 firms out of the 110. The inclusion of the top executive's name for each affiliate by KSK allowed for each communication to be addressed personally to that executive. The 17 were informed in the letter that information had already been received from their UK affiliate, thereby indicating that a connection with the company had already been established. The facsimile machine used was one which indicates if you get through or not. All did. Four positive responses came back – Pentel, Shofu, Union Tool and Tanaka Kikinzoku; the first three of these were among the 17 with UK affiliates, suggesting that the prior contact established via the UK affiliate had made an impression and influenced response. Pentel, Union Tool and Tanaka Kikinzoku agreed to interviews in Taiwan. The Taiwanese president of Shofu's 50/50 joint venture informed me immediately that he had sent the letter and questionnaire to the Japanese headquarters. From this materialised a proposed meeting in Japan. These four firms, plus Mabuchi, constituted the case study firms for this chapter.

4. The interviews with the three affiliates in Taiwan were arranged for the end of May and first half of June, 2002. The request for them to be conducted in Japanese was accepted by all three. The reason for this request was to underline the competence to deal with the subject matter and possibly thereby to elicit profounder insights into the company's situation. The format as in the questionnaire sent to them was followed. It is common in the case of such meetings with Japanese that proceedings are initiated with discussion of mutually familiar ground, hence the simplicity of the opening questions which the interviewee knows are being posed for confirmation at most. To this extent the interviews were structured. However, two of the interviewees had very conscientiously studied the questionnaire beforehand and were therefore well

apprised of what was wanted. So I allowed them to run ahead of the order of questions as they incorporated and interconnected facts which actually answered questions further down the line.

Prior to the interviews a notebook was prepared. On the right hand page were the questions as sent to the interviewees with spaces under each of them for annotating the comments made during the interview. In addition, on the left hand page were notes derived from written data about the particular company already obtained which were used to embellish and individualise the original non-firm-specific questions. Taken together with the notebook to each interview was a file with all the collected materials concerning the particular firm (and which formed the basis for the notes on the left hand page) so that they could be referred to if more detailed confirmation of a point was required. The notes taken at the interview were subject to immediate review afterwards. At the end of each interview, in addition to requesting newspaper and journal articles as well as company histories, I asked if they could arrange for me to visit their headquarters in Japan. All three accepted and arrangements were made.

5. With Shofu, this meant four interviews in Japan which took place in the third week in June 2002. In that arrangements with the three already interviewed in Taiwan were made in-house by these companies it was not possible to stipulate the language, so I did not push for it. The result was that the interviews at Pentel and Tanaka Kikinzoku were conducted in English, while those at Union Tool and Shofu were in Japanese. (With Mabuchi included, therefore, of the total of eight interviews at five firms, six were in Japanese.) The same interview format as above was repeated, except that with the three repeat interviews Taiwan was de-emphasised to an extent, with greater concentration on question groups 1, 2 and 6 (see Appendix). Nevertheless, comments on Taiwan were forthcoming.

### *(iii) Analysis*

The data compiled for the analysis of the case studies for this thesis (including the test case study) are thus derived both from verbal and written sources in English, Japanese and Chinese. They are as follows:

- (i) General materials reviewed in Chapter Six
- (ii) Interviews
- (iii) Case study company catalogues and other published materials
- (iv) Newspaper and journal articles
- (v) Case study company websites

### **7.2.3 Methodological Framework**

#### ***(i) The Quantitative Base***

The account of the 110 firms in Chapter Six can be regarded as the first stage in the case study analysis in that it constitutes a documentary underpinning to what is to follow in this chapter. It is a filter allowing for parsimonious control of data input volume and timing. Yin (1994) maintains that the strengths of documentation are that it is stable and can be reviewed repeatedly; it is unobtrusive in that it is not created as a result of the case study; it is exact inasmuch as it presents names, references and details; it comprises a broad coverage over time, events and settings; it is precise and quantitative. This, needless to say, does not drive a wedge between documentary evidence and the case study. On the contrary, as Eisenhardt (1989) avers, the case study typically combines data collection methods which include documents, archival records and interviews, and the evidence can be quantitative (presented as figures, for example) or qualitative (in words) concerning motives and reasons for corporate behaviours and exploration of the priority given to influential factors as those determined key events in the company history. This, as stated above, is essentially the process followed here. The particular characteristic of the approach is that the case studies actually form part of the initial pool of quantitative data and are then abstracted from that pool for deeper analysis. That is to say, having already been part of a general analysis which has had chronological, geographical and comparative elements, while also being both explanatory and descriptive (Miles and Huberman, 1984; Yin, 1994), they are now to be matched against this background both individually and as a group, with a focus on uncovering a managerial perspective in the processes driving the patterns discovered in Chapter Six.

## ***(ii) The Qualitative Construct***

So the quantitative and qualitative are complementary. The data compiled in Chapter Six can act as a break to narrow, idiosyncratic conclusions drawn from excessive concentration on a few case studies and therefore not generalisable (Gill and Johnson, 1977; Eisenhardt, 1989). The essence of the case study, on the other hand, is that it individualises and humanises; it allows the investigation to sustain the holistic characteristics of what actually takes place within and around the single, particular firm or small group of firms. That is to say, the case study, as one of the qualitative research methods, gives the researcher more flexibility in tackling the intricacies of real-life social phenomena. It can explain, describe and illustrate institutions and events which are too complex for survey or experimental strategies to handle. The core within that is the attempt to elucidate the decision or set of decisions, in terms of why they were taken, how they were implemented, and with what result (Schramm, 1971). Or to put it in the terms of this thesis, the case study has been employed to explore the intricacies on the individual firm level of the decision to invest abroad as an element of its strategy of articulation as it internationalises in a globalising environment. The individual case studies in this thesis were also backed up by data particular to the individual firm, again mostly compiled in advance of the interviews. This allowed for the interviews to be targeted, while at the same time a certain distance could be maintained so that conclusions would not be prejudiced by too intimate a relationship with the interviewees (a danger which could have been quite real if reliance had been placed on a web of personal contacts).

## **7.3 Case Study Outlines**

### **7.3.1 Opening Remarks**

In the following are presented case studies comprising five Japanese firms which could be classified as leading medium-sized enterprises when they made direct manufacturing investments in Taiwan during the period from the 1960s to 1990.



The fact that they can be categorised as LMEs has to be justified. Hence, the initial two sections of each of the case study accounts constitute, first, descriptions of how the company was conceived and thereafter how it evolved with its chosen product line, and second, a rundown of its LME character. This is an essential background because a cardinal assertion of this thesis is that an enterprise's history, product selection and business comportment have a direct bearing on the course it pursues internationally. Or, to put it otherwise, the way the LME has initiated and conducted its affairs on its home territory is reflected in the way it articulates abroad. One potential articulation manoeuvre in this internationalising evolution is to take advantage of proximity as represented here by Taiwan and extending eventually to the East Asian region. The case studies are presented in the order in which they made their initial investment in Taiwan, and this coincides to a marked extent with the attitude taken towards Taiwan. This is encapsulated in a final section for each company which discusses its articulation by pinpointing a distinctive 'articulation attribute' as done for the briefer illustrative international examples in Chapter Two. Although, again, it should be recognised that this is only *one* of each company's attributes selected to illustrate a point. Product and quality are at the heart of their articulation attributes in all cases. In fact, the cases presented (though not selected with this in mind, since they were to a degree self-selected by willingness to participate) do turn out to represent a range of LMEs by attributes and behaviours, and serve to illustrate thereby the variety possible within the LME category.

7.3.2 Case Study 1: Pentel

7.3.2(a) Interview Details

*Interview 1*

<b>Date</b>	June 14, 2002	<b>Place</b>	Taipei
<b>Interviewee(s)</b>	Mr. C. Sakamoto, Managing Director		
<b>Language</b>	Japanese	<b>Duration</b>	1 hr 20 mins

*Interview 2*

<b>Date</b>	June 20, 2002	<b>Place</b>	Tokyo
<b>Interviewee(s)</b>	Mr. N. Mumo, Assistant General Manager		
<b>Language</b>	English	<b>Duration</b>	2 hrs
<b>Remarks</b>	Mr. Mumo was marketing manager in Los Angeles for 10 years		

**References** P1 = Mr. Sakamoto; P2 = Mr. Mumo; P3 = Mr. M. Izuka (UK Pentel General Manager; e-mail contact); PC = English catalogue for 2002; PW = Japanese Website in December 2002; PH = Japanese-language ‘Steps in Pentel’s 50-year History’

**Synopsis** BOX 7

7.3.2(b) Company Description and Internationalisation Progression

Company and Product. In the immediate aftermath of the Second World War Yukio Horie came to the conclusion that what was most needed for the building of a new Japan was education. Whereupon, in 1946, he established the All-Japan (Dragon) Stationery Co., Ltd., which would in 1971 be renamed Pentel Co., Ltd. Mr. Horie’s commitment was given extra emphasis by his assumption of the chairmanship of the newly inaugurated Tokyo Stationery Association in that initial year (PH, 1). Over the next half-century the company was to become an all-round supplier of stationery items and office equipment, being particularly renowned for its roller pens and ballpoint pens. The industry was to become indebted to Pentel’s enterprising innovativeness as it posted world firsts with new types of crayons and pens. In Japan it climbed to third ranking in the industry after Pilot and Mitsubishi Pencil, although now it is being put to the test by other rivals. For instance, Zebra ([www.ZEBRA.co.jp](http://www.ZEBRA.co.jp)) recently overtook it on the domestic front in volume sales, while a new challenge is surfacing internationally with Korean companies like Dong-A Pencils ([www.dongapen.com](http://www.dongapen.com)) starting to develop original products rather than merely copying, a menacing new departure (P2).

## BOX 7

### *Case Study 1*

#### Pentel

*LME Status in Japan:* Comprehensive maker of stationery items and office equipment, ranking in top three overall.

*Established in Japan:* 1946

#### *Company Names and Addresses (Japan and Taiwan)*

JE	Pentel Co., Ltd.	7-2, Koami-cho, Nihonbashi, Chuo-ku, Tokyo
JJ	Penteru K.K.	(03)3667-3333 <a href="http://www.pentel.co.jp">www.pentel.co.jp</a>
TC	Feilong Wenju (Gu)	3 <sup>rd</sup> . Fl., 40, Long Jiang, Rd., Taipei
TE	Pentel (Taiwan) Co., Ltd.	(02)2471-2555

#### *References (Page)*

ZNK (562) JCH - NKJ - MKB (726) KSK (187)

#### *Investment Details*

Taiwan approval date (ZNK) March 1968 Capital increase dates 1979, 1988, 1991, 1993

Current capital ratios: Pentel Co., Ltd. 100.0%

#### *Designations*

Company size/type designation **MM(I)\***

No. of employees in Japan (JCH) 1,408

No. of employees in Taiwan (ZNK) 110

Main products/business in Taiwan (ZNK) Manufacture, import and export of: stationery items.

#### *Investment Merits (ZNK)*

Contributing to development of Taiwanese economy; supplying quality items to local Taiwan market; exports worldwide.

*Sources of Raw Materials:* Japan, Britain, Switzerland, Taiwan, Germany.

*Sales/Export Destinations:* Taiwan, Southcast Asia, United States, Central and South America, Europe, Middle East, Africa.

#### *Investments Worldwide (KSK)*

East Asia Manufacturing: Taiwan (1968)

East Asia Sales: Hong Kong (1977), Singapore (1980)

Rest of World Manufacturing: United States (1965)

Rest of World Sales: France (1967), Australia (1967), Germany (1969), Britain (1970)

Pentel soon honed the art of mass production so that it was primed for fast growth and the attainment of LME status in the 1960s (P2). At the outset education meant children. So the company's initial products were crayons and other art materials, as opposed to Pilot with its fountain pens and Mitsubishi with its ballpoint pens. However, such a market is restricted, or 'closed niche'. To achieve more stability and greater potential for growth Pentel needed to extend along the continuum of its expertise to encompass writing materials appealing to all age groups (P1), and this was the decisive step that ensured the company's consolidation. Over time the company has sought to guarantee volume by engaging in original equipment manufacturing (OEM) in addition to supplying its own products, and it has pursued depth by, for instance, coming up with a range of inks for its own pens (PW). Furthermore, with production mounting apace it set up Pentel Chemical in 1965 to make plastic moulds for its own production purposes and for sale (PH, 4; PW). This evolution was accompanied by the development of a sales network, adding branches in Nagoya and Sapporo in 1956 and 1957 (PH, 3) on the way to achieving nationwide coverage through the Tokyo headquarters and eight branches in other major cities, supplied by three factories (PW). Having also entered office automation and robotics in the early 1980s, Pentel lays claim to a substantial body of technological expertise (PW), but the question seems to be how much it can realistically handle. There have been expensive failures and it is pulling back to some extent from its involvement in machinery – including robots, printers, automatic assemblers – due to incomplete production and maintenance capabilities (P2).

LME Character of Company. No little part of both the successes and shortcomings of this company can be attributed to the extraordinary vitality and assiduity of one man, Yukio Horie, who remains at the helm as chairman in his nineties. Pentel is an independent, unlisted company whose destiny has long been dictated by the purse of "an old-fashioned businessman" (P2), being largely owned by him and his immediate family, and averse to resorting to the market for financing (P2). Despite the prolonged adherence to a single individual's

predilections, however, Pentel has strong LME credentials. It has never invested in land, trusts and bonds (P2). It has always stuck strictly to the manufacturing and marketing of its core and related products – whatever may be said about the latter – and the commitment to these two activities can be subsumed under the rubrics of perfection and profile. Perfection has been pursued through research and development, processing, delivery and service. Very early on the founder realised that he needed educated engineers, with the result that Pentel pioneered the systematic advancement of stationery items in Japan with the establishment of an R&D centre in 1960 (P2; PH, 3). It places a priority on developing its own machinery and equipment in order to consummate and accelerate responsiveness to demand (PW). Such resolve was to produce, already in 1965, the only pen at the time which did not leak under extreme changes of atmospheric pressure and so was deemed suited for use on Gemini space flights numbers six and seven (P2). This symbolised the drive to become the most prestigious company in the industry as profile was targeted as part of the product mix. So the next stage was winning the Deming Award – a much coveted prize in Japan – as testimony to a mastery of total quality control, and this was achieved in 1976 (PH, 7). Subsequently, from the late 1980s through the early 1990s, image was cultivated by developing exclusive brands for Burberry, Oxford University, and Yomiuri Giants baseball team, as well as sponsoring a soccer club in the Japan League (PW). Ever conscious of visibility, Pentel walked away with the Gold Prize at the Paris International Stationery and Office Equipment Sample Fair (SIPPA) in 1994 (PH, 10).

Internationalisation. Another prize going Pentel's way was the Prime Minister's Award for Exports, which it had captured for eight successive years by 1971 (PW). Overseas markets were a very early priority, with the president himself travelling in 1953 to Okinawa (then occupied by the United States), Taiwan, Thailand and Hong Kong, not only to open sales offices but also to hold lectures jointly with well-known local artists (PH, 2). This was one man's decision; he simply wrapped some crayons in a *furoshiki* (Japanese kerchief) and went, combing the yellow pages in his hotel upon arrival (P2). The following year saw staff dispatched to do likewise and hold booster sessions in retail outlets and

department stores in Southeast Asia (PH, 2). By 1958 it was the turn of the United States, which thenceforth was to enjoy a fabled role in Pentel's internationalisation odyssey. Certainly the air of mythical adventure is sustained: not being able to speak English to get into a convention in Los Angeles, Yukio Horie stood outside handing out pens and name cards, which were thereafter to engender business (P2). Success and celebrity came quickly in the 1960s. In addition to Gemini fame, President Johnson appeared on the cover of Newsweek signing a document with a Pentel pen, while the company – in those less expensive times – obtained a sponsorship for the Rice Bowl (PH, 4). Eventually, in the 1970s and 1980s, the United States was to become Pentel's most flourishing manufacturing base abroad. But before that, in 1965, Pentel of America was established in Chicago as the core of the sales effort there, while Paris became the location for the first sales office in Europe.

With Hong Kong already active, these were succeeded in quick order by incorporated affiliates in England and Australia (1967), and subsequently in Switzerland (1977), Singapore (1980), Malaysia (1982), and Amoy (Xiamen), China (1994) among others (PH, 5-10). As of now, Pentel has some 23 purely sales offices worldwide. Overseas manufacturing, on the other hand, was launched in two places during 1968, these being Taipei and suburban Paris, to be followed in 1971 by Los Angeles. Of more limited scope are plants set up in Tianjin, China and Uruguay, both in 1991 (PH, 5-10). In global terms the essential marketing shape is production in France for Europe, in Japan and Taiwan (plus Tianjin) for Asia, and in the United States for the Americas (with knockdown in Uruguay) (P1). Outside Japan, where the innovative inspiration and superior technology still reside (P3), the Los Angeles plant replicates the biggest range and volume, with the third place in global ranking shared by Paris and Taipei (PC, 107; P2). The Paris and Los Angeles plants were from the outset and still are *market-oriented*, while Taipei and Tianjin were at their conception *production-oriented*, Tianjin starting with 90% exports and thus tracing the pattern set by Taipei twenty-odd years before (P1). Overall, though, there are apparent problems of effective reach. The Paris plant is limited in capacity and must supplement with imports from Japan to service a European

market of daunting complexity to the company (P1, P2). Overseas production and sales are concentrated on writing and art materials; machinery and other items are restricted to Japan. Although Pentel has sold some of its electronic machinery in the United States, it had to pull out for lack of maintenance capability. An American firm offered to act as agent for the machinery, but Pentel declined, seemingly wary of the large size of that company and, by implication, the danger of losing control (P2).

Role of Taiwan. In being production-oriented, Pentel's investment in a Taiwan-based manufacturing affiliate in 1968 was a conscious resolution to take advantage of lower costs. It was also inspired by geographic and cultural proximity, and the fact that a lot of Taiwanese could speak Japanese and were amicably disposed towards Japan. A nascent domestic market was an additional contributing factor (P1). In the full swing of ebullient economic growth, Japan had absorbed its surplus workforce and was becoming too expensive for labour-intensive tasks, while Taiwan seemed ideally suited to service the Asian markets. All that was needed was to shift the machinery to Taiwan (P3). So a start was made with art materials and pastels; writing materials were to follow in the 1980s (P1). There were quality problems with Taiwanese intermediate suppliers in the early stages, but these have been ironed out to the extent that 80% of the company's needs are now local content. The initial quota of six Japanese engineers has been pared down to four, and the Japanese now busy themselves with design and quality control while all other aspects of production are in the hands of the Taiwanese. Pentel Taiwan enjoys domestic market shares of 50% in art materials and 17 – 20% in writing materials, while its biggest export market is Southeast Asia (P1).

Unusually for the 1960s, Pentel managed to establish a wholly-owned subsidiary rather than enter into a joint venture agreement. It has remained committed to Taiwan ever since, increasing its capital into the 1990s and building a new plant some years back (P3). However, its original *raison d'être* is no longer tenable for the very same reasons that production was offloaded from Japan in the first place. Nowadays, to fully vindicate its status as a viable regional nucleus with

global pretensions, the Taiwan affiliate must develop 'technically innovative', higher value-added products (P3). In that the manufacturing output has been on the rise, especially over the past five years (P1), there seems to have been a successful adjustment. Transformation in Taiwan has also been a *contributing* factor in this process: augmented Taiwanese technological proficiency enables Pentel Taiwan to purchase moulds locally, its plants have replaced manual operations with machinery, and the maturing of the domestic market in particular has allowed it to offer products of higher quality at higher prices (P1). Equally pertinent to the Taiwan affiliate's sustained relevance is the division-of-labour role it plays within the company. From the headquarters' global perspective Pentel Taiwan is the base for low- to medium-priced items. As such, it is Pentel Taiwan which is now responsible for manufacturing art materials and erasers for worldwide distribution. It has fulfilled large orders for the Los Angeles affiliate too (P2). After Japan and America it ranks third technologically, although it still has some ground to make up on design (P1, P3).

All this having been said, there seems to be some divergence of opinion within the company as to what extent Pentel Taiwan functions as a regional hub. The managing director, Mr. Sakamoto (P1), a long-time resident of Taiwan and a fluent speaker of Chinese, saw no such role (1). The people of East Asia are too culturally diverse; the Chinese do not have much in common with the Indonesians, for example. Conversely, according to Mr. Mumo (P2), who has little hands-on experience of Asia as a whole, Mr. Horie has always wanted to see Taiwan as a manufacturing centre for the region, complementing Tokyo, Los Angeles and Paris. Mr. Mumo claimed that the head office is pushing Taiwan to assume a central role in Asia; that is why art materials and erasers have been moved there. Nevertheless, in terms of overall logistics as opposed to manufacturing and sales, Pentel Taiwan's contribution has been limited. Tianjin, which commenced operations in 1991, assembles a small range of simple items with materials and personnel all emanating from Japan. Neither has Pentel Taiwan been involved with a technical tie-up in India (P1). Shanghai, on the other hand, offers greater prospects and Pentel Taiwan engineers could be dispatched to that city to assist in the preparations for manufacturing there.



Chinese-speaking Mr. Sakamoto regards this as simply a matter of differing linguistic and cultural distance; the southern Shanghai Chinese are easier to understand for the Taiwanese than the northerners of Tianjin, and besides there are many Taiwanese who have taken up residence in Shanghai over recent years. The longer term strategic role of the Taiwan affiliate still has to be clarified, and the influential factors having a bearing on this are as much external and historically contingent as based on an agreed internal corporate vision.

### **7.3.2(c) Articulation**

<b><i>Articulation Attribute: Publicity</i></b>
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To say that Pentel's articulation is based on its gift for self-publicity is not in any way to underplay the foundations essential to it. As has been seen, Pentel distanced itself from SME status at a very early stage by effecting mass production and pursuing in-depth research and development. As business grew it extended its core competence 'chamber' by inventing new types of writing and drawing items while attaining depth by, for example, developing a full range of inks. Operations were further amplified by the insistence where possible of building machinery in-house and ensuring its own manufacturing of essential materials, instanced by the establishment of the plastic forming plant in 1965 (PH, 3, 4). In its own words Pentel aims for: "high productivity in response to needs"; "the realisation of low costs"; "process design free of defects"; and "tight control through in-house production" (PW).

That having been said, the instinct for publicity as an indispensable ingredient of the articulation was, it would seem, born with the company because it was inherent in the founder's own disposition. Already, by 1950, the manifestations were strikingly apparent. In that year, photographs of famous baseball players were inserted in each pack of crayons, Pentel introduced the first advertising vehicle in the history of Japan's stationery industry, conferences aimed at teachers were inaugurated to promote the teaching of art, and the publication of a monthly magazine called 'Aesthetic Culture' (*Bi-iku Bunka*) was commenced.

This also ensured having the right people seen using Pentel pens; after Gemini and President Johnson in the 1960s, it was the turn of the Tokyo Summit leaders in 1979 (PH, 7). Likewise targeted were prizes and awards: the annual export prize, the Deming Award, SIPPA. And now there are on-line clubs called Milky and Miffy which children can access to get the latest news.

The essence of this approach, as noted, was transported abroad right from Mr. Horie's first visit. The one important difference with the domestic scene is that concentration is almost totally on the core competence of writing and drawing materials. When an attempt was made to sell machinery in the United States, it was found that the supporting framework was not in place because there had been no incremental development towards this. This implies that the form of articulation applied by Pentel is limited in scope. On the other hand, the company can achieve an international presence for its core competence products – which are easily transportable and require little, if any, maintenance – with a few strategically placed factories and a larger number of designated sales bases, *plus* effective publicity. When President Johnson's picture appeared in Newsweek the sales impact was worldwide, including back in Japan (PH, 4). Hence, the advertising vehicles, prizes and created incidents are a self-conscious, deliberately targeted aspect of strategy for the elaboration of image and reputation. More importantly, they strike directly home to the *end-user*, and this is where Pentel's articulation has proved to be successful because it is the maker of end-user products; publicity packages the presentation for the end-user.

***Key Points:***

- \* early internationalisation***
- \* Taiwan first choice for overseas manufacturing***
- \* Japan remains core location for R&D***
- \* evidence of upgrading in Taiwan***

### 7.3.3 Case Study 2: Mabuchi Motor

#### 7.3.3(a) Interview Details and References

##### *Interview 1*

<b>Date</b>	June 25, 1999	<b>Place</b>	Kaohsiung
<b>Interviewee(s)</b>	Mr. S. Awai, General Manager Mr. Y.C. Tsai, Chief Engineering Manager		
<b>Language</b>	Japanese	<b>Duration</b>	45 mins
<b>Remarks</b>	Company film shown after interview; then factory tour.		

**References** M1 = Mr. Awai; MC = Mabuchi catalogue dated April 1999;  
MW = Mabuchi website in December 2002 + journals as  
given

**Synopsis** BOX 8

#### 7.3.3(b) Company Description and Internationalisation Progression

Company and Product. In 1946 Kenichi Mabuchi founded Kansai Rika Kenkyusho, a research institute, which subsequently developed "the world's first high-performance horseshoe-shaped magnetic motor" (MC, 18). This was to lead to the establishment in 1954, for full-scale production and sales of this motor, of Tokyo Science Industrial Co., Ltd., renamed in 1971 Mabuchi Motor. The initial market for the company's products consisted of toy manufacturers in Japan. A small company to start with, Mabuchi grew rapidly to become a mass-production LME, thereby epitomising Nakamura's (1990) idealisation of the Japanese LME in the first post-war phase to 1970. In addition, the company started on what was to become a constant search for new markets, one of the first of these moves being the development in 1960 of high-precision small electric motors enabling it to enter the audio equipment and timepiece markets (MC, 18). Shortly thereafter, in 1962, expansion impelled the first geographical extension with the inauguration of a new factory, while by the end of the decade the need for further capacity exacerbated by labour shortage sent the company further afield to Tohoku in the north of Japan. During this time also, the company was increasingly conscious of the need not only for *mass* production but also for *uniformity* of production, resulting in the inauguration of a model factory in 1965. This was complemented by the establishment in 1974 of

Mabuchi Precision Industries Ltd. for in-house production of motor shafts. Fast expansion from the 1970s on allowed for listing on the second section of the Tokyo Stock Exchange in 1986 and the first section in 1988 (MC, 19). In fact, by the end of that decade Nakamura (1990) regarded Mabuchi as one of those firms that had successfully outgrown LME status. However, our definition is based on the number of domestic employees only, the most recent figure for which is 980 (MW). Moreover, Mabuchi demonstrated a very strong LME character for almost all the period from 1961 to 1990.

LME Character of Company. This character was based on being the pioneer on the way to becoming "the world's leading manufacturer of small electric motors" (MC, 1) – to quote the current president Takaichi Mabuchi – now boasting an annual production capacity of some 1.4 billion motors. Application diversity means that these motors now cover a wide range of products adapted to all kinds of environments, encompassing the broad categories of audio and visual equipment, automotive products, information and communication equipment, and home and industrial equipment (MC, 14-17), extending over office automation, car windows, electronic locks and many more (Asano, 1995). This progress has been achieved by the simple but highly effective formula first practised with the toy manufacturers of approaching the leading firms in the respective industries for their individual specifications, then developing motors which set the standard for industry (Nihon Noritsu Kyokai, 2001). This was the tactic which propelled Mabuchi into markets for cassette tape recorders and automatic vending machines in 1975 and for information and communications equipment in 1995, for example (MC, 19). Quality, price and reliable delivery are the key elements to be addressed. Quality is maintained through constant workforce training and strict adherence to production based on manuals. Severe price competition has been one of the reasons for a division of labour whereby the company headquarters in Chiba Prefecture, adjacent to Metropolitan Tokyo, is engaged in sales and research and development at its technology centre, while virtually all manufacturing is now done abroad. The need for reliable delivery is another reason for overseas production, at locations in close proximity to its customers.

## BOX 8

### *Case Study 2*

#### Mabuchi Motor

*LME Status in Japan:* World famous manufacturer of small DC motors.

*Established in Japan:* 1954

#### *Company Names*

JE	Mabuchi Motor Co., Ltd.	430, Matsuhidai, Matsudo-shi, Chiba Pref.
JJ	Mabuchi Motaa K.K.	81-47-384-1111 <a href="http://www.mabuchi-motor.co.jp">www.mabuchi-motor.co.jp</a>
TC	Huayuan Dianji Gongye (Gu)	6F, 3 Tun Hwa S. Rd., Sec 1, Taipei
TE	Mabuchi Taiwan Co., Ltd.	(02) 579-6535

#### *References (Page)*

ZNK (120) JCH (1) 734 NKJ (693) MKB - KSK (192)

#### *Investment Details*

Taiwan approval date (ZNK) January, 1969 Capital increase dates -

Current capital ratios: Mabuchi Motor Co., Ltd. 76.0%

Huayuan Dianji Gongye 24.0%

#### *Designations*

Company size/type designation **MM (I)\***

No. of employees in Japan (JCH) 958

No. of employees in Taiwan (ZNK) 1,961

Main products/business in Taiwan (ZNK) Manufacture and sales of:  
DC motors.

#### *Investment Merits (ZNK)*

Export base for Southeast Asia and China; can deal better with clients through localisation; contributing to Taiwan's industrialisation.

*Sources of Raw Materials:* Taiwan, Japan.

*Sales/Exports Destinations:* Taiwan, Japan, Hong Kong, Southeast Asia, Europe, United States.

#### *Investments Worldwide (KSK, Company Sources)*

East Asia Manufacturing: Hong Kong (1964), Taiwan (1969), China (1988), Malaysia (1990), China (1994, twice), China (1995), Hong Kong (1995), Vietnam (1996)

East Asia Sales: Singapore (1989)

Rest of World Manufacturing: -

Rest of World Sales: United States (1977), Germany (1993)

Internationalisation. Mabuchi's first *manufacturing* venture abroad was inaugurated in 1964 in Hong Kong to supply that market with motors and to function as a low-cost base for the world market. The precedent of having wholly owned subsidiaries was set at that time and this has been adhered to in most cases with subsequent plants in Taiwan, China, Malaysia and Vietnam, thus exhibiting, also, a notable regional bias. Complementing the manufacturing setup is a sales network, starting with an office in New York in 1965, thereafter supplemented by more offices in North America as well as in Germany, Hong Kong, Taiwan, Singapore and China (MC, 7, 11). As well as pioneering the standards in Japan, therefore, in initiating production in Hong Kong so early Mabuchi also took the lead in its industry in the implementation of an international division of labour, initiating the same training, conducted by the Japan-based staff, at all its bases to achieve the same product result (Nihon Noritsu Kyokai, 2001:205). In the process there have also been shifts in locations for manufacturing bases within the East Asian region (where all the manufacturing is done), notable among which has been the staged divestment of Hong Kong's manufacturing role between 1976 and 1986 in favour of sites in Guangdong Province (although still under Hong Kong Mabuchi), followed by the opening of plants in Dalian, Jiangsu and other places in China, and then most recently in Vietnam (MC, 19; Hodo and Xie, 1995). As of 1993, moreover, in the interests of upgrading the operations of these overseas plants, they have been equipped to produce key components in-house rather than relying on outsourcing (Nihon Noritsu Kyokai, 2001:211). Contact among all the company's operating units is maintained through an intranet system (M1).

This manufacturing structure has a truly global reach, serving such customers as Matsushita Electric Industrial (MEI, our reference large TNC) of Japan, Acer of Taiwan, Braun of Germany, Hewlett Packard of the United States, and Samsung of South Korea (MW). These companies, too, are globally operating TNCs, so that where they receive Mabuchi's motors is where they are having their own products assembled. Hence the prominence of China as indicated in Table 7.1 as a source of demand. Table 7.2, on the other hand, suggests how Mabuchi is

being challenged and forced to modify its product mix: sales of its motors for toys and hobbies are declining because of mounting competition from Chinese firms (MW).

**Table 7.1 Recent Trends in Mabuchi Motor Sales by Geographic Area**  
Unit: Million motors

	1999	2000	2001	2002 Projected
Japan	197	175	143	139
North and Latin America	135	141	127	137
Europe	191	209	204	221
China and Hong Kong	705	803	660	846
Asia Pacific	356	380	326	354
Total	1,584	1,707	1,462	1,700

Source: MW

**Table 7.2 Recent Trends in Mabuchi Motor Sales by Application**  
Unit: Million motors

	1999	2000	2001	2002 Projected
Audio-Visual Equipment	793	897	722	873
Office Equipment/ Precision Instruments	105	118	100	135
Automotive Products	322	351	345	397
Home Appliances/ Power Tools	189	212	216	226
Toys and Hobbies	174	128	77	66
Total	1,584	1,707	1,462	1,700

Source: MW

Role of Taiwan. Mabuchi Taiwan Co., Ltd. (Taiwan Mabuchi), the first of two ventures on the island, was established in Taipei in 1969 with the intention of supplementing the Hong Kong production for the world market. A decade later the need for a further boost in production was answered by the addition of Mabuchi Motor Taiwan Ltd. (Kaohsiung Mabuchi) at the export processing zone in Kaohsiung. Taiwan Mabuchi added two more factories in 1973 and

1978, while Kaohsiung Mabuchi constructed a second factory in 1984. On top of that, Mabuchi Kaohsiung enlarged its production facilities in 1980 and Taiwan Mabuchi expanded its third factory in Hukou also in 1984. This heralded the peak of the motor manufacturing endeavor in Taiwan. As production began to shift to the Asian mainland thereafter, the Taiwan affiliates assumed new roles of no lesser importance. For one, they helped to set up these subsequent ventures and were also engaged in the training of personnel for them (M1). Added to which, Taiwan Mabuchi was a source of finance for them. Mabuchi Motor (Malaysia) Sdn. Bhd., established in 1989, was wholly financed by Taiwan Mabuchi and has a Chinese general manager, while both Taiwan affiliates jointly put up the funds to start Mabuchi Motor (Jiangsu) Co., Ltd. in 1993 (MC, MW). Sun Zuei Che, the general manager of Taiwan Mabuchi, is the only non-Japanese member of the board of directors of the parent company in Japan (MW), and his own company in Taiwan has now developed into the manufacturer of moulds and other sophisticated equipment required by the group (Nihon Noritsu Kyokai, 2001:211), a good example of knowhow transfer leading to corporate spin-out.

However, there seems little doubt that Mabuchi is in the process of exercising its option of withdrawal from Taiwan and relocation *within* the East Asian region. By the time I visited the main Kaohsiung Mabuchi factory in the summer of 1999, mass production had all but ceased and the few operators around were Philippino women – a sign of last-minute cost-cutting because Philippino ‘guest workers’ will accept lower wages than the local Taiwanese. Mr. Awai (M1) claimed that the main function of the factory at that stage was making prototypes. As is evident from Table 7.3, though, motor production itself came to an end shortly after our discussion, while that at Taiwan Mabuchi was being further curtailed on the one hand and Mabuchi Motor Vietnam Ltd. (wholly financed by the parent company) was beginning to take off in a big way on the other.



**Table 7.3      Recent Trends in Mabuchi Motor Production by Factory**  
Unit: Million motors

	1999	2000	2001	2002 Projected
Hong Kong Mabuchi	861	1,030	816	921
Dalian Mabuchi	152	176	141	132
Wafangdian Mabuchi	128	135	104	126
Jiangsu Mabuchi	127	183	124	156
Malaysia Mabuchi	101	124	102	82
Taiwan Mabuchi	18	13	7	6
Kaohsiung Mabuchi	2	-	-	-
Vietnam Mabuchi	85	148	160	215
Total	1,473	1,809	1,455	1,638

Source: MW

### 7.3.3(c) *Articulation*

#### ***Articulation Attribute: Positioning***

Mabuchi's motors are not, in the main, state-of-the-art. True, they may have to respond to "intense cold, blistering heat, dramatically high or low humidity, the effects of salt or gasoline" (MC, 11) in their more sophisticated guises. But, generally speaking, they constitute an essential part of a host of products which are not high technology themselves and do not need high technology inputs. What they need is consistency and reliability, plus inexpensive motors because the end products themselves are often very cost-sensitive. These are the reasons why positioning is of the utmost importance to Mabuchi. It can be seen functioning in three distinct ways: product identification, processing and workforce, and manufacturing location. Product identification has already been touched on with reference to the company continuously looking for new applications, from toys to audio equipment and so on. This in turn is related to simultaneously identifying key clients with whom to work with and standardise ahead of the competition. The exercise over time can be summed up as: developing markets → offering cheap, high-quality motors → expansion of the motor applications → creating profitable basic models (Nihon Noritsu Kyokai, 2001). As a consequence, some one hundred types of motor have been

standardised in this fashion for Mabuchi's worldwide markets, where in many cases the end products would not exist without its motors (Asana, 1995).

However, a constraint is apparent in the processing which calls for a distinctive gearing of the articulation strategy. The fact is that at present automation is at a premium in the manufacture of these motors which is still extremely labour-intensive. This has meant that, especially as it has internationalised, Mabuchi has taken on an appearance very similar to apparel makers with their minimal managerial headquarters complemented by a much larger factory workforce overseas (Evans, 1997). However, where Mabuchi differs from the apparel industry is that, being aware of the continuous changes in its industry, the central management functions to instil in the workforce through constant training based on the manual format an ability to spontaneously react to such changes at the local level in support of the global business. In other words, in an industry where there is not much scope for differentiation in the core products, the ability to respond quickly and imaginatively with standardised, cheap mass produced items holds the key.

The necessary elements for achieving this are price competitiveness and timely delivery. These then turn on the manufacturing location. Essentially Mabuchi has two kinds of customer: those who produce inexpensive items, such as electric razors and hair dryers, using cheap-labour locations like itself; and those who produce relatively expensive items, such as automobiles, where the location is less influenced by labour costs, and for which the electronic motor is a much less significant factor in the total cost of the fully assembled end product, but nevertheless must be as inexpensive as possible to meet the competition. This has resulted in a dual articulation strategy. In setting up in Hong Kong and subsequently in Taiwan and China, Mabuchi was, in the first instance, targeting the first type of customer in an exercise where the exigences of both *market* and *production* coincided; the market and cheap production labour were at the same location. In setting up a sales office in Detroit, it moved to serve a large market of the second type with products made at competitive prices using cheap labour in East Asia. This is the essence of Mabuchi's internationalising articulation.

***Key Points:***

- \* early internationalisation***
- \* Taiwan not first hut early overseas location***
- \* East Asian bias in manufacturing → regional integration***
- \* Japan remains as headquarters and R&D hub***
- \* evidence of upgrading in Taiwan + knowledge transfer (though recent withdrawal)***

### 7.3.4 Case Study 3: Shofu

#### 7.3.4(a) Interview Details

##### *Interview 1*

<b>Date</b>	June 21, 2002	<b>Place</b>	Kyoto
<b>Interviewee(s)</b>	Mr. Y. Wakino, Managing Director, International Division Mr. K. Murakami, Manager, International Department		
<b>Language</b>	Japanese	<b>Duration</b>	1 hr 15 mins
<b>Remarks</b>	-		
<b>References</b>	S1 = Mr. Wakino; SC = latest English catalogue; SW = Japanese/English website in December 2002 + newspaper articles as given		
<b>Synopsis</b>	BOX 9		

#### 7.3.4(b) Company Description and Internationalisation Progression

Company and Product. Shofu is now a major manufacturer and supplier of dental materials, claiming top ranking in Japan and Asia and third ranking worldwide, after Dentsply of the United States and IVOCLA AG of Lichtenstein (S1). This depends on what is actually included in the definition of dental materials but there is no doubt that it is very strong in abrasives and cement for dental technicians, for example, where its position is overwhelming in Japan (JCH, 1999:722). It is also the only specialist dental company listed on any of the Japanese stock exchanges, having first had its shares registered as over-the-counter stocks in 1963, before being listed on the second sections of both the Osaka and Kyoto exchanges in 1989 (SC, 23). The company saw its beginnings in its modern guise with the establishment by Katei Shofu III of Shofu Dental Mfg. Co., Ltd. in 1922 to manufacture and sell artificial teeth. At that time higher quality porcelain teeth were almost exclusively imported from the United States and Germany. What Shofu did was to adapt its expertise in traditional Kiyomizu-yaki ceramics to the production of porcelain teeth for a growing domestic market (S1; SC, 3). The company was to progress unspectacularly thereafter until its 'golden age' (S1), a period extending from around 1967 in the height of Japan's economic expansion to 1980. During this time there was a rapid increase in the number of dentists, while a changing diet resulted in more bad teeth among the Japanese, and the universal health care insurance system

initiated better coverage for dental services. Business was excellent and Shofu rushed to open new plants in Shigaraki, Japan as well as South Korea and Taiwan (S1). However, the heyday was shortlived. Already, in the 1970s the oil shocks had caused a dramatic rise in the price of resin, by then a basic ingredient in Shofu's product. Business flattened out as the market became saturated with domestic production and imports. And in addition to the woes suffered by the industry as a whole, Shofu had to cope with the demise of its largest customer, a dealer accounting for over 10% of its business (S1).

This culminated in a complete overhaul of the company's top management in 1983 as it sought to restructure under the slogan 'Challenge of Changes' (S1; SW; SC, 3). The turn of events had induced a rethinking about the realm of the company's core activity. No longer was it to be "just the manufacture of ceramic teeth .... but also to produce a whole field of dental materials" (SC, 3). That is to say, with world firsts to its credit such as its dental spherical amalgam launched in 1965, Shofu's basic position with regard to artificial teeth was fairly sound, but given the fact that – as Mr. Wakino (S1) put it – the dental business as a whole in Japan, including dental chairs and other equipment, is only half that of the dog food business, there was at the very least a need to extend the logic of the company's potential as far as possible. So Shofu Inc., to use the new name adopted in the restructuring, now produces some 50 million artificial teeth a year for a domestic market share of nearly 60%, while also being a general manufacturer of all materials and equipment necessary for dental care, ranging over – to cite at random – porcelain powders, alloys, waxes, and orthodontic appliances (Kyoto Shinbun, May 11, 2001; SC, 23). Beyond the headquarters in Kyoto, nationwide distribution is channelled through six sales offices, the first of which was opened in Tokyo as early as 1955 (SC, 19; SW). But even with substantiation of the core business consequent upon the restructuring initiated in 1983, the fact is that this is a business serving a market heavily affected by the unerring pressure to cut the costs of a universal health insurance system overseen by the government. Internationalisation of its own products apart, one solution has been to act as import and sales agent, as it does for Bausch & Lomb (electric toothbrushes) (SC, 23) and for Johnson & Johnson (JCH, 2000).

## BOX 9

### *Case Study 3*

#### Shofu

*LME Status in Japan:* Leading manufacturer of dental materials.  
*Established in Japan:* 1922

#### *Company Names*

JE	Shofu Inc.	11 Kamitakamatsu-cho, Fukuine, Higashiyama-ku, Kyoto
JJ	Shofu K.K.	75-561-1112 <a href="http://www.shofu.co.jp">www.shofu.co.jp</a>
TC	Taiwan Songfeng (Gu)	8 Fl., 2 Fuxing N. Rd., Taipei
TE	Shofu Dental Taiwan Company Ltd.	(02) 891-4772

#### *References (Page)*

ZNK (364) JCH (2) (722) NKJ (942) MKB - KSK (84)

#### *Investment Details*

Taiwan approval date (ZNK) October 1974 Capital increase dates -  
Current capital ratios: Shofu Inc. 50.0%  
He Dong 50.0%

#### *Designations*

Company size/type designation **MM(I)\***  
No. of employees in Japan (JCH) 412  
No. of employees in Taiwan (ZNK) 43  
Main products/business in Taiwan (ZNK) Manufacture and sales of:  
resin false teeth, dental abrasives.

#### *Investment Merits (ZNK)*

Using labour force, base for exports to Southeast Asia.

*Sources of Raw Materials:* Taiwan, Japan.

*Sales/Exports Destinations:* Southeast Asia, Japan, US, Taiwan.

#### *Investments Worldwide (KSK)*

East Asia Manufacturing: Taiwan (1974)

East Asia Sales: -

Rest of World Manufacturing: Britain (1991)

Rest of World Sales: United States (1971), Germany (1978), Britain (1992)

LME Character of Company. Porter *et al* (2000) have indicated the unique status of Kyoto among Japan's larger cities. It is the home of industries, such as precision electrical products, some of the origins of which can be traced way back in time, like ceramics with its history of 1,200 years in that city, the imperial capital of Japan until the Meiji Restoration of 1868. Largely ignored by industrial planners during Japan's economic growth throughout the twentieth century, they aver, Kyoto firms have not been enclosed in *keiretsu* networks offering their ambiguous mix of financial and market access but ultimate exogenous control. Standing on their own feet, small Kyoto enterprises have instead been able to focus on their core businesses – not unusually benefiting from contacts with local academic institutions – and perchance compete globally (Porter *et al*, 2000:157-8). Shofu Inc. is one of these companies. The company is tradition-bound in every Japanese sense. Its founder was in fact born Jotaro Inoue in 1870, but having been apprenticed to a second-generation ceramics artisan, Katei Shofu II, his outstanding work was rewarded by marriage to the daughter and elevation to successor as Katei Shofu III (Kyoto Shinbun, May 11, 2001). This is the traditional Japanese practice of coopting ability into the *ie*, or household, often in effect synonymous with a business enterprise. In 1906 he set up his own company to export ceramic ware and to develop insulators based on Kiyomizuyaki techniques to substitute for imports, and for export. Mounting expertise and new market potential were to result in the establishment of Shofu Porcelain Teeth Research Institute (*Shofu Toshi Kenkyujo*) in 1919 (Kyoto Shinbun, May 11, 2001), the immediate forerunner of Shofu Dental Mfg. Co., Ltd. started in 1922.

Hence, Shofu is a classic example of a company which successfully adapted from a traditional industry to a modern one while sustaining a continuity symbolised by Katei Shofu V, who as chairman up to 2000 was the prevailing retainer of the *ie*, or family, interest. The family, as we have stated, is usually an essential ingredient of the putative LME. But when what we have termed the 'first decision' to concentrate on artificial teeth was taken in 1922, it also came with a commitment to *research*, indicative of the depth of resolute endeavour in a core competence likewise associated here with the LME. It is through this route that

Shofu has parleyed the skills of Kiyomizu-yaki into state-of-the-art dental technology. In addition to the spherical amalgam mentioned earlier, this has been the source of a wealth of innovation in dental materials and machinery in which the company claims world leadership, calling for the integration of discrete technologies such as organic and inorganic chemistry, ceramics, machinery, electricity and electronics (SC, 8, 11). Shofu was the first in the Japanese dental industry to acquire ISO9001 and 9002 approval as well as CE certification, evidence of the quality of its offerings. A further progression was the inauguration of its Institute for Life Technology Inc. in 1992 as a base for the development of dental equipment computer software (SW). Then in 1997 was completed a new research building, at its headquarters site in Kyoto, housing "the most advanced facilities in the dental industry" (SC, 23). Complementing this is a drive for visibility and linkage. In addition to active participation in trade shows, it provides specialised computer software for use exclusively at universities and research institutes. It supports symposiums as a means of assisting researchers and scholars, and established its Shofu Dental Club in 1976 to promote close contact with practitioners and dealers. As far back as 1947, Shofu started collaborating with leading universities in the production of dental publications (SC).

Internationalisation. Indeed, academic linkage features prominently, in Shofu's international strategy too. Among others, it has established arrangements with researchers at the universities of Indiana, Houston and California (San Francisco) in the United States, and the universities of Newcastle and Manchester in Britain (Europe) (S1). This network of international collaboration is a relatively recent development, but in fact Shofu was already exporting its products before the Second World War, chiefly to neighbouring China, Taiwan and Korea (S1). It restarted in the 1960s, eventually setting up Shofu Products Inc. in 1972 as the trading arm (SC, 23). This trade was afforded a particular boost in 1965 with the launching on the international markets of its new spherical amalgam which replaces silver for fillings. This particular material caught the attention of 3M at an exhibition in Paris, but negotiations stalled and



that American TNC lost interest. However, the interpreter was so fascinated by the prospects that he concluded a joint venture with Shofu, which resulted in the establishment in 1971 of its first overseas branch, Shofu Dental Corporation based in Menlo Park, California (S1; SC, 18), thus providing a good example of how opportunism affects the first step in internationalisation. In so doing, Shofu also became the first Japanese dental materials company to set up a sales office abroad (S1). Overseas sales operations were subsequently augmented with affiliates established in Dusseldorf in 1978, Singapore in 1980, and Shanghai in 1996 (SW), while in the wake of restructuring in the mid-1980s the trading functions of Shofu Products Inc. were absorbed by the newly constituted Shofu Inc. in a consolidation exercise.

And yet there is the question as to whether Shofu has moved fast enough on the international scene over the past four decades, notwithstanding an overseas sales ratio now of some 19% (JCH, 2002:846). As late as 2001, the president, Katsuya Ohta, was saying that it was important *from now on* to actively develop overseas markets, notably Southeast Asia (Kyoto Shinbun, May 11, 2001). But although it may categorise itself as the world's third dental product company, it is only a fraction of the size of the leader Dentsply ([www.dentsply.com](http://www.dentsply.com): January 2003), which claims to distribute its products in over 100 countries from manufacturing bases in 22 nations spanning six continents. What is more, with the purchase of the then second largest company in the industry, Degussa Dental of Germany, in 2001, Dentsply is now the only non-domestic supplier with a significant foothold in Japan. Taiwan apart with respect to overseas production, Shofu by contrast purchased the small British firm of Advanced Healthcare Ltd. (AHL) in 1991 to safeguard its position with the imminent EU integration, and then supplemented this venture with the establishment in the same country of Shofu Dental Products Ltd. as the second European sales base in 1992. AHL has similar links with universities, in this case Queen Mary & Westerfield College, a part of London University, and the Royal London Dental Hospital ([www.ahlgeneric.co.uk](http://www.ahlgeneric.co.uk): November 2001), and it is working with Shofu on the development of new bonding materials (SC, 18).

Role of Taiwan. Taiwan hosts Shofu's only significant, still extant production venture outside Japan at present (although AHL may be growing). However, this joint venture has always occupied a somewhat ambiguous position within Shofu's internationalisation strategy. To start with, it did not come into existence out of the need to engage rivals or potential rivals in a progressively internationalising environment. Rather it was the direct outcome of a shortage of labour, which had become a serious obstacle especially for smaller firms in Japan by the early 1970s, to produce for the *domestic* market. This was exacerbated by the requirement to attain the JIS (Japan Industrial Standard) for artificial teeth, which was much more stringent than in neighboring countries and was subject to verification and approval by the Ministry of Health and Welfare (MHW) (2) for health insurance purposes. At the beginning of the 1970s an attempt was commenced to manufacture artificial teeth in South Korea, but this ended in failure and withdrawal after five years because the Japanese standard was unattainable (S1). Likewise a first assay in Taiwan proved abortive. Finally, the partnership with Ho Dong in a joint venture which now has Mr. Andy Ho, son of the initial party to the agreement, as chairman achieved the desired level, although it took ten years to 1985 and a visit to the Taiwan factory by MHW officials to consummate the effort (S1). That having been said, this made Shofu the first Japanese dental product company to acquire JIS abroad (SW). It is also significant that the Taiwan venture was able eventually to reach the required technical production standard, and as such this stands as an example of upgrading.

The question is what kind of role Shofu Dental Taiwan has in the parent company's regional and global strategy building. Cultural and geographical proximity were influential in the initial choice of location (S1) – although no more nor less than South Korea. However, since the inception of the joint venture the organisation has remained largely unchanged and there has been no increase in capital. Every year some of the Taiwanese engineers go to Japan for retraining. Other than that the attitude imparted by Mr. Wakino (S1) was one of simply keeping an eye on them, implying a distancing of relationships between Japanese and locals, once standards are achieved, noted in a number of studies of

Japanese investing companies in East Asia (cf. Ibuki, 1994; Imada and Sonoda, 1995). The intention at the outset was to transfer part of the production of artificial resin teeth to Taiwan where costs are lower, and this was done (SW). But again, this simple objective has not changed; all the materials for production are still imported from Japan to ensure quality and 70% of the output is shipped back to Japan. Of the rest, the largest part – or 30% - is destined for Taiwan itself where Shofu is the top brand for artificial teeth with a market share of 60% to 70%. The remainder is exported mainly to Singapore, India, Indonesia and Malaysia (S1). But while the manufacturing in Japan is of the high-end products and is completely robotised, that in Taiwan is low-end and not nearly so automated. Mr. Wakino was pessimistic in summing up: the Taiwan venture is gradually becoming less significant, no new technology emanates from there, labour costs have risen, and the exports from Taiwan are not increasing. Moreover, Taiwan has no special relationship with the sales offices in Singapore and Shanghai (S1). So, Taiwan shares a division-of-labour exercise with the parent company to supply the demand for less expensive artificial teeth in Japan's domestic market and some exports elsewhere.

#### **7.3.4(c) Articulation**

<b><i>Articulation Attribute: Linkage</i></b>
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In terms of FDI, Shofu is the least internationalised of the five case studies presented here. Size of operations apart, there is an argument that its articulation attribute – linkage – which has proved highly successful on home territory could prove obstructive, or at least present difficulties, when attempts are made to replicate it abroad. To recapitulate and embellish on what has been stated above, in Japan the company has devoted much time and effort to cultivating its links with every associated aspect of its business. These can be grouped as follows: technology integration, dental practitioners and sales personnel, universities and research institutions, and publications. The nature of Shofu's business, notably since the restructuring in the 1980s, has called for the need to interconnect staff and outside collaborators covering a wide range of disciplines, including

chemistry, metallurgy, and computers. The reconstruction, with its much broader perspective, also stimulated the extension of core competence with the development and production of machinery and equipment for dentists and dental technicians. Because specialist knowledge is required for using them, Shofu regards regular communication with all professionals involved, as well as training of dealers and sales representatives, as *de rigueur*. Moreover, it caps this with clinical lectures 30 times a year in major cities around Japan (SC, 14, 15). There again, face-to-face contact by its *own* sales staff is seen as an absolute necessity for assimilating information from outside.

As for the academic world, Shofu has solicitously cultivated knowledgeable collaborators through, for example, the development of specialised software for exclusive use at given universities and research institutions (SC, 8). It participates in training programs with research and education institutions, including dental universities and dental clinics. "Academic and technical information gathered through product demonstrations by instructors, through equipment maintenance, and via day-to-day contact with clients, is fed back to the company and applied to product development" (SC, 14). Reciprocally, it produces academically acclaimed publications, such as the two-volume annual entitled 'Color Atlas' which carries many colour photographs detailing clinical treatment. In other words, the reason for Shofu's success domestically is in no little way due to its very thorough attention to reach and reputation in its articulation strategy, encompassing key elements of the dental profession.

The question is how much of this strategy can be transplanted abroad, or indeed need be transplanted given the company's not-inconsiderable overseas achievements largely through exports. As has been seen, the Taiwan affiliate does not extend the company's internationalisation to any great degree, though it plays a role in production by way of its allocated role in a division of labour. On the other hand, some of the practices refined at home have been applied to the internationalising efforts. Shofu is a major participant in international academic conferences and exhibitions as an exercise in creating its information networks. It maintains contacts with various universities, notably in Europe and North

America, while its bases in the United States (for the Americas), Germany and Singapore (for Southeast Asia) perform similar publicity, symposium and information gathering functions as in Japan. Moreover, the purchase of AHL in Britain seems to portend a closer linkage at the local affiliate level between these functions and the manufacturing itself. However, the interconnecting density here pales against the coverage – albeit heavily in the United States and Europe – achieved by main rival Dentsply. In other words, it would seem difficult for Shofu to replicate in full its articulation attribute internationally, because of the depth and regularity of contacts that have to be made. These are hard to reproduce outside its original domestic setting. One solution could be acquisition of local capability and established networks, like Dentsply, and as it has done in a small way with AHL. Another could be to concentrate on the growing potential of Southeast Asia, taking advantage of weaker competition and market proximity. But at this stage it would seem that internationalising articulation needs to be further elaborated to match the quality of the products.

***Key Points:***

- \* early internationalisation of sales***
- \* Taiwan one of few places able to support overseas production***
- \* Japan remains main centre of technology creation and networking with medical profession (though overseas links growing)***

### 7.3.5 Case Study 4: Union Tool

#### 7.3.5(a) Interview Details

##### *Interview 1*

<b>Date</b>	May 31, 2002	<b>Place</b>	Taoyuan Hsien
<b>Interviewee(s)</b>	Mr. T. Inami, General Manager Mr. Chen I Hsing, Deputy Manager		
<b>Language</b>	Japanese	<b>Duration</b>	1 hr 30 mins
<b>Remarks</b>	-		

##### *Interview 2*

<b>Date</b>	June 18, 2002	<b>Place</b>	Tokyo
<b>Interviewee(s)</b>	Mr. H. Ohdaira, General Manager, Corporate Planning Division		
<b>Language</b>	Japanese	<b>Duration</b>	2 hrs 15 mins
<b>Remarks</b>	Film shown before discussion		

**References** U1 = Mr. Inami; U2 = Mr. Ohdaira; UC = latest Union Tool English catalogue; UW = Union Tool Japanese website in December 2002; UF = Union Tool English film; MTW = Megatool Website dated December 2002; TUC = Taiwan Union Tool English/Chinese catalogue; TUW = Taiwan Union Tool English/Chinese website + journals and newspapers as given

**Synopsis** BOX 10

#### 7.3.5(b) Company Description and Internationalisation Progression

Company and Product. Coincidentally Union Tool also saw its origins in the dental materials industry. Union Tool Chemical Research Co., Ltd. came into existence in 1960 to conduct research into and commercialise the nation's first carbide burrs for dental use (UW). By the time its corporate name was changed to what it is now in 1971, however, its 'first decision' had redirected its course to much more lucrative prospects. Union Tool was to grow in tandem with the evolution and diffusion of the printed circuit board (PCB) and the computer because of its accumulated expertise in the design and production of ultra-hard carbide drill bits (U2; Keieisha Kaiho, November, 1990). An initial approach by Japan IBM to produce such drill bits for making tiny holes in computer PCBs did not work out, chiefly because Union Tool was not equipped for the volume production required. However, the interest of founder and electrical engineer, Ichiro Katayama, had been sparked, and with the encouragement of the electronics components industry mass production of PCB drill bits commenced

in 1970 (UW). These drill bits have ever since remained the core of the business, while being surrounded by a panoply of related equipment, machinery, machine tools and measuring instruments. These in turn have opened up new opportunities and client industries, like for example its rolling machine, RF-20, which incorporates technology developed in the grinding process of PCB drill bits and is used in the forming of automobile power windows, mirrors and door locks (UW; UC, 14).

Government policy arguably gave an initial boost to Union Tool's chances with, to give one example, the designation in 1970 of manufacturing machinery incorporating PCBs for special amortisation consideration in the so-called rationalisation measures for small business. But the fact that Union Tool could flourish when the world of precision engineering really took off in the 1990s was in a very large measure due to Mr. Katayama's dedication and engineering perspicacity (U1). The lead-up to this in the decade of the 1980s saw annual turnover rise by a factor of ten from ¥700 million to ¥7.5 billion (Keieisha Kaiho, November, 1990); by the end of the millennium Union Tool was an internationally established manufacturer churning out 10 million PCB drill bits a month for around 40% of the Japanese market and 30% of the world market (UC, 9; Dianzi Shibao, August 31, 1999). Profit increases were to continue unabated to the first quarter of 2001, although PCB drill bit sales tapered off later in the year (Handotai Sangyo Shinbun, September, 2001). Such rapid growth allowed for a fast elevation in corporate status; starting with its listing on the over-the-counter market of the Japan Security Dealers Association in 1989, Union Tool was listed on the second section of the Tokyo Stock Exchange in 1995 and the first section in 1998 (UW).

## BOX 10

### Case Study 4

#### Union Tool

*LME Status in Japan:* Manufacturer of piercing drill bits for printed circuit boards (PCBs), with 40% of domestic market and 30% of world market.

*Established in Japan:* 1960

#### *Company Names*

JE	Union Tool Co.	4-15-8 Minami-Ohi, Shinagawa-ku, Tokyo
JJ	Yunion Tsuuru K.K.	3-5493-1001 <a href="http://www.uniontool.co.jp">www.uniontool.co.jp</a>
TC	Taiwan Youneng Gongju (Gu)	No. 51-9, Hai-Hu, Hai-Hu Tsun, Lu- Chu Chiang, Taoyuan Hsien
TE	Taiwan Union Tool Corporation	(03) 354-3111^5

#### *References (Page)*

ZNK (478) JCH (1) (650) NKJ (655) MKB - KSK (232)

#### *Investment Details*

Taiwan approval date (ZNK) 1985 Capital increase date 1986, 1990 (twice)  
1995, 1996

Current capital ratios: Union Tool Co.	80.0%
Taiwan Youneng Gongju (Gu)	20.0%

#### *Designations*

Company size/type designation **MM(I)\***  
No. of employees in Japan (JCH) 619  
No. of employees in Taiwan (ZNK) 107  
Main products/business in Taiwan (ZNK) Manufacture and sales of:  
ultra hard drill bits for print circuit boards.

#### *Investment Merits (ZNK)*

Base for local sales in Taiwan and for exports to the Asian region.

*Sources of Raw Materials:* Japan.

*Sales/Exports Destinations:* Taiwan, Hong Kong, Philippines, Japan, Europe.

#### *Investments Worldwide (KSK)*

East Asia Manufacturing: Taiwan (1985), China (1995)  
East Asia Sales: Hong Kong (1998), Singapore (2000)  
Rest of World Manufacturing: United States (1981)  
Rest of World Sales: Switzerland (1986), Britain (2000)



Responsible for production in Japan are three factories all on the same site in Nagaoka, Niigata Prefecture, which accommodate 80% of the company's Japan-based workforce (Nikkei Sangyo Shinbun, February 27, 2002). This site was acquired in the 1970s by Mr. Katayama from a bankrupt friend in a timely move just when the costly Tokyo factory location was proving too small to accommodate expansion (U1; U2). Structural backup for manufacturing is afforded by the Mishima Research Centre in Shizuoka Prefecture and five sales offices nationwide, while the company now has seven wholly-owned subsidiaries operating abroad. Competition domestically comes from large *keiretsu*-linked companies Toshiba Tungaloy, Mitsubishi Materials and Sumitomo Electric (U1). Even by the early 1980s, though, Union Tool was well on top, recording monthly output of 220,000 drill bits as against 140,000 to 150,000 for Sumitomo Electric and 120,000 to 130,000 for Toshiba Tungaloy (Nikkei Sangyo Shinbun, February 16, 1982). Its biggest rival abroad is actually TCT of Taiwan ([www.tct-tool.com](http://www.tct-tool.com)) with some 15% of the world's market share for PCB drill bits as of 2001. Others include RTW in Europe (7%) and Tycom Corp. in the United States (6%), which is in fact an arm of the Japanese ceramics giant, Kyocera ([www.kyoceratvcom.com](http://www.kyoceratvcom.com)) (U2). Union Tool's customers in Japan run the gamut of the electronics industry, including Ibiden, Canon, Citizen Watch, Sodick, Sony, TDK, Japan IBM, Makino Milling Machine, Mitsubishi Electric, Ricoh, Yokogawa Electric, and Matsushita Electric Works (UW), all the kind of demanding customers whose escalating requirements have forced Union Tool to keep up the pace of technical innovation.

LME Character of Company. This company's forte has been intensive innovation rooted in and stemming from a finely specialised core. When it started life it was a small urban factory (*machi koba*) run by a highly gifted engineer, but heavily reliant on Mitsubishi Metals, the member of a huge *keiretsu*, for both input materials and product marketing. With a mere 20 to 30 employees, for its first ten years it could muster sales of only some five to six million yen in the dental equipment market which was anyway extremely small (Keieisha Kaiho, November, 1990). But to develop the carbide burr for dental application, Mr. Katayama also had to devise the machine tools because nothing suitable was

available from elsewhere, and it was the result deriving from this combination of skills that first caught the interest of Japan IBM (Nikkei Sangyo Shinbun, February 17, 1982). It was also this self-supportive, pioneering technology which was to ensure Union Tool's leadership in PCB drill bits from the outset (U2). Technological ingenuity reduced costs which guaranteed markets. The core technology is the ability to insert an expensive tungsten carbide drill bit into a cheap stainless steel shaft in a manufacturing process called shrinkage fitting (*yakibame*) adapted to this particular need, which substantially lowers costs because tungsten is not thereby used for the shaft (U2; Nihon Noritsu Kyokai, 2001:226). Union Tool likes to express this as 'triangulation of production', connecting drill bits, materials and machines (UF). Its approach can also be conceived in terms of layers, with the core drill bit and sub-core exclusive technology just described, which remains unpatented in the interests of secrecy, enveloped by a periphery of proprietary machinery and equipment likewise employed within the firm but also for sale. In fact, most of its manufacturing machinery and equipment is designed and built in house (UC, 6), another element in keeping costs down while also allowing for quick response to customers' idiosyncratic demands (U2). Such machines can also be profitable in themselves: once Union Tool's crossed roller guides had been perfected and thereupon mass produced in the mid-1980s, for example, they were an instant hit in the PCB industry (Nikkei Sangyo Shinbun, February 18, 1982).

With its technological prowess thus amply confirmed, Union Tool's LME status is given further definition by the fact that it remains an independent, family-run business. But this independence was not easily come by. The first PCB drill bits Union Tool made were under the Mitsubishi Metals' brand name, and it was only in 1976 that Union Tool's own brand appeared on the market. This was obviously much to the satisfaction of Ichiro Katayama who is quoted as saying, "You're not a company if you're doing subcontracting" (*shitauke wa kigyo ja nai*) (Nikkei Sangyo Shinbun, February 17, 1982). At any event, from that point on Union Tool was able to pull away from subordination in an exercise the Japanese refer to as *datsu keiretsu* (breaking away from the *keiretsu*). Thereafter the company was to show its LME evolutionary qualities in two significant ways.

First, as was already apparent in the early 1980s, Union Tool was precariously dependent on the engineering genius of its founder, a weakness which did not escape his own attention (Nikkei Sangyo Shinbun, February 18, 1982). It would seem that one attempt to make good this shortcoming, coupled with the hiring of more engineers, is the establishment of Mishima Research Centre in Shizuoka Prefecture, some one hundred miles from Tokyo, in 1996 (UW). Second, is the contrast in character between the founding father, Ichiro Katayama, and the son who has now taken over as president, Takao. Although trained as an engineer like his father, the younger Katayama is equipped with a strong marketing sense and a grasp of modern corporate strategy (U2). While the father oft times burned the midnight oil at the drawing board, the son has in recent years sought funding from institutional investors in the global financial market (Nikkei Kin'yu Shinbun, April 16, 2002). And this would appear to be from a position of strength. That is to say, for fiscal 2000 Union Tool ranked twelfth among all listed companies in Japan regarding sales profit ratio (Nikkei, August 15, 2001), while in the same year Takao Katayama was counted among Japan's wealthiest individuals (Forbes, September, 2000).

Internationalisation. From its inception, as part of the electronics revolution, the making of PCBs has been global in its implications and realisation. Venturing abroad at the beginning of the 1980s synchronous with the big Japanese PCB makers, Union Tool was embarking on a strategy which it has not faltered from since, that being to install production bases where the markets are (UC, 18). Bigger than Japan or anywhere else at the time as a market for PCBs was the United States. So from the outset Union Tool's objective was not exporting but establishing local production there. This took concrete form with the founding in 1981 of Megatool Inc., based in Buena Park, California (UW). Owned 51% by Union Tool and 49% by the former president of Toolon Inc., at the time the largest ultra-hard drill bit maker in the United States, it was the first time that a Japanese ultra-hard drill bit maker had set up abroad (Nikkei Sangyo Shinbun, February 16, 1982). It was to prove a highly successful joint venture (U2), not only because of the markets it created in the United States and the Americas

generally but also in terms of the overall growth of the company in the international arena as a whole. To cite Ichiro Katayama as quoted: "By establishing Megatool, in addition to learning about the state of the ultra-hard drill bit industry in the United States, we were also able to get the latest information on what was happening in the computer industry. For example, just to take the drill bits, clients frankly told us about the results of in-house tests they made comparing our drill bits with those of other makers and this was very helpful for us" (Nikkei Sangyo Shinbun, February 18, 1982; my translation). Union Tool subsequently, in 1995, assumed complete ownership of this subsidiary which now has 368 employees and thirteen bases other than Buena Park – the only unit involved in manufacturing – in the United States, Canada and Mexico engaged variously in inventory supply and resharpening of drill bits. Capital was increased in 1998 and expansion of the Buena Park factory was completed in the following year (MTW).

Following on from the United States, overseas manufacturing bases were to be established in Taiwan in 1985 and in Shanghai 1995 to provide an East Asian manufacturing platform. These were supplemented by sales offices in Switzerland (Europe) in 1986, Hong Kong in 1997, and Singapore and the United Kingdom in 1998 for a full complement of seven wholly-owned subsidiaries worldwide. However, as the catalogue remarks: "At the same time, we also have expanded our domestic manufacturing and research and development facilities so that we can further strengthen our global network" (UC, 15). This bespeaks a prevailing preoccupation with cohesiveness, still centrally directed from the corporate headquarters in Japan. Whereas the presidency of Megatool was in the first instance held by the American joint venture partner, it has since been assumed by Takao Katayama (MTW). He is also president of the other major production subsidiary in Taiwan (TUW). All machinery and equipment used in the overseas manufacturing plants originate from Japan, including those purchased from Mitsubishi, Hitachi and Britain's Sandwick (U2). The company has set up a global information network to ensure integrated research and development leading to new manufacturing prospects (U2). This centralisation of focus is also the better to see where the global trends

are heading, as with the shift of market to Asia in recent years, which resulted in the decision in 2002 to raise the monthly production of drill bits at the Shanghai plant fivefold (Nihon Keizai Shinbun, February 7, 2002). This also entails a regional division of labour to some extent, partially in recognition of a hierarchy of technological capacity among the respective plants, but also partially provoked by the perceived danger of loss of business through technology piracy. So while the principle is local production for local sales, the secrets behind the process for making very thin drill bits are kept in Japan where they are all made. The Taiwanese and Chinese subsidiaries are restricted to the relatively simple and cheap drill bits for motherboards and the like. There is also the fact that the most sophisticated demand is in Japan and state-of-the-art products have to be developed there jointly with the Japanese PCB makers (U2). This bespeaks an 'internal control' over the scope for technology diffusion from Japanese LMEs to overseas subsidiaries in some cases, as for example where the key core technology is deemed too sensitive to release to even the 'technologically ready' subsidiaries.

Role of Taiwan. In contrast to the United States, exports were the precursor of investment in Taiwan. In the event, import duties were high and the market was growing, so at the request of the local distributor – and probably through the indirect prompting by the host country government that the high duties imply – Union Tool set up a manufacturing joint venture with the distributor in 1985. Upon the death of the Taiwanese partner in 1989 (TUC), this became a wholly-owned subsidiary of Union Tool, subsequently comprising two factories on the same site some twenty miles along the seashore from Taipei (U1; UW). Mr. Inami (U1), rather ingenuously perhaps, accredited this timing, just as the electronics industry was taking off in Taiwan, to luck rather than judgement. Be that as it may, the new company enjoyed a tax holiday for the first five years of operation and a substantial customer base already in place. It has been managed from the start by Mr. Inami himself, who was already fluent in Chinese (U1). Product upgrading was to occur in the reassuring environment of inevitable growth as, indeed, we have seen with the other Taiwan subsidiaries of the case

study LMEs in this chapter. There was some element of production-orientation at the initial stage with exports from Taiwan going to North and South America and South Africa, but this has tapered off considerably since. In fact, contrary to the information in Box 10, which is no doubt dated by comparison, Mr Inami (U1) claimed at my interview with him that, apart from a little to China, there were no exports now because Taiwan Union Tool was having great difficulty keeping up with demand in Taiwan. In fact, all exports to the Union Tool's Swiss, Hong Kong and Singapore subsidiaries originate from Japan (U1). Thus the Taiwan operation has taken on the replication of Megatool, being all but totally market-oriented around all but the more advanced of the company's products. This is not least because Taiwan now has the world's second largest PCB manufacturing industry (U1).

In fact, the market has always been the overriding determinant for establishing a production base in Taiwan. At the time: "There are many Japanese companies putting up factories in Southeast Asia. Half of these are looking for cheap labour costs, but Union Tool is different. As it is after satisfying domestic demand in Taiwan, there are few exports" (Kishi, 1990:47; my translation). Neither were local costs converted into a deterrent as wages climbed rapidly in the second half of the decade. Other than the market itself, another reason for this was the high degree of automation possible in the work of making the PCB drill bits, drill bit pointers and routers allocated to the Taiwan plant (U1). These are all made to Japanese standards employing Japanese technology with machines and materials all emanating from Japan (U1). Of necessity, though, given the rising sophistication of demand, the Taiwan plant is being constantly upgraded to keep in step with international standards. Moreover, growth has been incessant, with capital increases in 1986, 1990, 1995 and 1996. Having risen significantly from the founding year in 1985 to 1998, sales of drill bits then rocketed from 2 million a month in 1999 to 3 million in 2000 (U2; TUC). Taiwan Union Tool was right at one of the epicentres of the new high-precision mounting industry. What is more, it was far from merely supplying Japanese transplants. In fact, of the fifteen main clients listed in its catalogue, only two – T.C.I. and Hitachi Chemical – are Japanese (U1; TUC). All the rest are local Taiwanese companies

which have emerged in the electronics boom enjoyed by that country for most of the past two decades: companies like BoardTek Electronics ([www.boardtek.com.tw](http://www.boardtek.com.tw)), Printed Wire Corp. ([www.tpwc.com.tw](http://www.tpwc.com.tw)), Phoenix Precision Technology ([www.ppt.com.tw](http://www.ppt.com.tw)), and World Wiser Electronics ([www.wwei.com.tw](http://www.wwei.com.tw)) (TUC). In other words, Union Tool's contribution to the upgrading of Taiwan's economy is not so much by direct transfer of technology and know-how to its suppliers or by spin-off, but by making possible the technical advancement of its downstream (Taiwanese) customers. The question on the horizon perhaps is the potential emergence into prominence of the Shanghai subsidiary after its relocation in larger premises in 2000 (UW). Taiwan has dispatched its engineers for two-month spells to assist in installation and training, but to what degree it will integrate further with developments on the mainland is perhaps still on the drawing board. One thing that does seem possible is a distinctive regional division between these locations of labour predicated on the fact that Union Tool is playing the labour-intensive card in Shanghai where four Chinese do the work of one Japanese while still commanding a much lower wage bill (U1). The respective roles of China-Taiwan within the integrating East Asian region will be shaped by the results of corporate choices such as these.

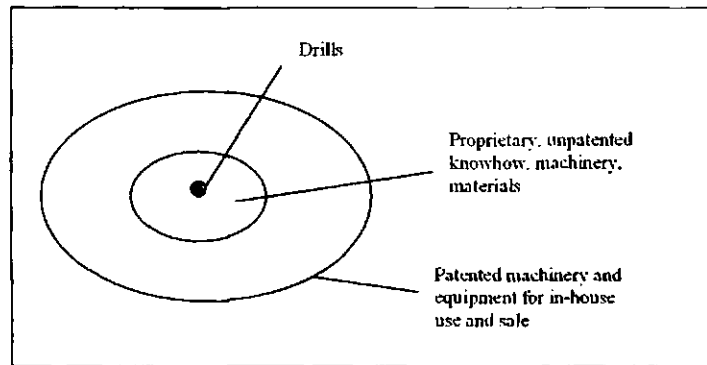
### 7.3.5(c) *Articulation*

<b><i>Articulation Attribute: Ultra-focus</i></b>
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What 'ultra-focus' means here is not that Union Tool single-mindedly produces just one very narrowly defined product range, but that everything *ultimately revolves* around the one item, the PCB drill bit. In the simple diagrammatic representation in Fig. 7.1, this drill bit is the bull's eye in the middle which concentrates the company's vision. Exemplifying the inner circle is the shrinkage technology for combining the tungsten drill bit and steel shaft, plus the machinery and accumulated skills involved in grooving, finishing and pointing, together comprising the 'black box'. The outer circle constitutes the processing and other related machinery used in-house, but also for sale. The inner circle is unpatented because the very survival of the company *in its present form* is

almost exclusively dependent on it being unpenetrable for outsiders. The outer circle, on the other hand, is considered to be beyond the risk of such an eventuality while at the same time being a countervailing centrifugal force in recognition of the vulnerability inherent in such intensive focusing. That is to say, on the one hand the philosophy reigns to the effect that reliance on outsourced machinery would render it difficult to attain the same quality in product and service at the right price, on the other there is the desire to broaden the base of operations and redefine the company as a machine tool maker, to facilitate manoeuvre in the event of, say, laser beam technology suddenly undermining its position. This is a highly concentrated manifestation of articulation.

**Fig. 7.1 The Three Basic Elements of Union Tool's Articulation**



Concentration is also the key word for describing Union Tool's core competence *activities*, meaning the way business and, as an extension of that, internationalisation, have been carried out. As we have seen, Mabuchi's mainly medium-tech offerings and employment structure result in it swinging on a pendulum between production and market priorities depending on the customer's product. By contrast, Union Tool is highly specialised with a much narrower customer base of PCB makers who are geographically clustered, notably in Japan, Taiwan and California. In fact, business is so concentrated in the latter two that the *market* takes absolute precedence, hence the factories built there by Union Tool. This means that, in California's case in particular, the importance of being at the market doorstep which also presents opportunities for



gathering the latest industry information, far outweighs the burden of extra costs in the strategic mix.

Union Tool does compete on cost, but it is cost predicated on the market *plus* technical skill and excellence. With this combination, production-oriented decisions are more nuanced and less motivated by crude formulae heavily angled to cost considerations. More to the point, automation and rationalisation have reduced the labour input to around 10% of the production cost (Nihon Noritsu Kyokai, 2001), so Southeast Asia, for instance, does not hold out an expenditure-cutting appeal. This is why, along with the fact that Japan itself is a major market, most of Union Tool's manufacturing is still done at its plant complex in Nagaoka, though with a significant amount in Taiwan for that key market. However, over the past decade a new market pressure has been building up in the form of China, where many of Union Tool's clients have moved, not least from other parts of East Asia. Here again though, it is client clustering that is the justification for the plant in Shanghai, not cheap labour for production as such. Thus does a specialist intermediary supplier internationalise in concentrated form while the core – the ultra-focus – is retained firmly on the home territory.

***Key Points:***

- \* early internationalisation***
- \* followed market to U.S., then to Taiwan***
- \* technology transfer to Taiwan, but key elements internalised → impact more on downstream/users***
- \* keeps domestic (Japan) focus***
- \* production still in evolution with division of labour between Taiwan and China in the offing***

### 7.3.6 Case Study 5: Tanaka Kikinzoku

#### 7.3.6(a) Interview Details

##### *Interview 1*

<b>Date</b>	June 1, 2002	<b>Place</b>	Taipei
<b>Interviewee(s)</b>	Mr. Y. Sodeyama, General Manager (T1)		
<b>Language</b>	Japanese	<b>Duration</b>	1 hr 30 mins
<b>Remarks</b>	-		

##### *Interview 2*

<b>Date</b>	June 20, 2002	<b>Place</b>	Tokyo
<b>Interviewee(s)</b>	Mr. O. Ikeda, Chief, President's Office (T2)		
<b>Language</b>	English	<b>Duration</b>	1 hr 20 mins
<b>Remarks</b>	Film prepared, but discussion took precedence		

**References** T1 = Mr. Sodeyama; T2 = Mr. Ikeda; TC = Tanaka's latest English catalogue; TW = Tanaka's English/Japanese website dated December 2002; TH = Tanaka's history published in its centennial (1985) (3); EW = website of EEJA, a joint venture, dated December 2002 + newspapers as given

**Synopsis** BOX 11

#### 7.3.6(b) Company Description and Internationalisation Progression

Company and Product. The history of modern Japan is said to commence with the so-called Meiji Restoration of 1868. In founding Tanaka Shoten in 1885, therefore, Umekichi Tanaka participated in the inaugural wave of Japan's industrialisation (TW). Umekichi collected small coins from shrines and temples, handed these over to banks for notes and then transferred these notes to the shrines and temples for a commission (T2). In short order he was also melting down silver American dollars to make silver bullion, then expanding his business with the processing of platinum metals (T2; TW), as well as arbitraging silver and gold (T1). As early as 1889, in fact, Tanaka Shoten became the first enterprise to manufacture platinum products in Japan (TH, 53).

The company was incorporated in 1918 with Umekichi Tanaka as chairman of the board of directors, a position he was to hold until his death in 1936 (TW; TH, 53-4). In 1923, the company became the sole sales agent for Soviet platinum in the Far East (TH, 54). It also began importing platinum ingots from

the Soviet Union for manufacturing of products for domestic distribution (T2). By 1933 the production of platinum-rhodium alloy catalyst gauze had commenced, followed three years later by the building of new plants for platinum refining and silver electrolysis (TH, 54). Come the war period Tanaka was manufacturing platinum needles and ignition coils (T1), and by the time it adopted the current name of Tanaka Kikinzoku Kogyo in 1943 (4), it had 500 employees working in four factories (TH, 54).

However, in the immediate aftermath of the war it was to revert to small company status with only 30 employees in 1946. Nevertheless, its reputation remained assured, for two years later it was directed by the Ministry of Health and Welfare to start producing metal bullion for dental materials. In 1952 it was designated as a 'gold dealer' by the Ministry of Finance and its reemergence as an industrial supplier was underlined by it starting to produce electric contacts for wired telephone exchange equipment. By 1953, when it commenced the production of rolled gold and karat gold following the revision of the Gold Control Act, Tanaka's workforce had climbed to 100 (TH, 55). The construction of specialised plants was to follow in quick succession thereafter as illustrated in Fig. 7.2 (T1; TW). Having received a first fillip from demand for the Korean War in the early 1950s, Tanaka was to benefit greatly from the Japanese economy's expansion in the 1960s, with an extra bonus from the sales of its commemorative medal for the Tokyo Olympics of 1964. Its fortunes were then further boosted by government's liberalisation measures during the late 1960s and early 1970s, which among other things allowed for the free sale of bullion across national borders (T2). Such international exposure was eventually to lead to accreditation by prominent precious metals associations around the world, starting with the London Bullion Market Association in 1978 (TW).

## BOX 11

### *Case Study: 5*

#### Tanaka Kikinzoku

*LME Status in Japan:* Leading processor industrial precious metals.

*Established in Japan:* 1918

#### *Company Names*

JE	Tanaka Kikinzoku Kogyo K.K.	6-6, Nihonbashi Kayabacho 2-chome,
JJ	Tanaka Kikinzoku Kogyo K.K.	Chuo-ku, Tokyo 3-3667-8206
		<a href="http://www.tanaka.co.jp">www.tanaka.co.jp</a>
TC	Taiwan Tianzhu Guijinshu Gongye (Gu)	
TE	Taiwan Tanaka Kikinzoku Kogyo Co., Ltd.	9F, No. 146 Sung Chiang Rd., Taipei (02) 2571-5870

#### *References (Page)*

ZNK (382) JCH - NKJ - MKB (78) KSK (107)

#### *Investment Details*

Taiwan approval date (ZNK) October 1986 Capital increase date February 1998

Current capital ratios: Tanaka Kikinzoku Kogyo K.K.	36.0%
Tanaka Kikinzoku International K.K.	63.0%
Dachuan Qiye (Gu)	1.0%

#### *Designations*

Company size/type designation **MM(I)\***  
No. of employees in Japan (MKB) 1,136  
No. of employees in Taiwan (ZNK) 46  
Main products/business in Taiwan (ZNK) Manufacture and sales of: electric points.

#### *Investment Merits (ZNK)*

Expansion of sales in Southeast Asian region.

*Source of Raw Materials:* Japan.

*Sales/Exports Destinations:* Taiwan, China, etc.

#### *Investments Worldwide (KSK)*

East Asia Manufacturing: South Korea (1973), Taiwan (1986), Malaysia (1995)

East Asia Sales: -

Rest of World Manufacturing: -

Rest of World Sales: -

**Fig. 7.2 Factories of Tanaka Kikinzoku Kogyo**

Establishment	Name	Function
1959	Kobe Plant*	Manufacture of spinnerets
1960	Hiratsuka Plant	Welding, casting, rolling; making cross bars for contact tape
1965	Hiratsuka No. 2 Plant**	Collecting and refining gold solutions and compounds
1973	Isehara Plant	Making platinum instruments for glass industry, eg optical glass
1977	Tsuruoka Plant	Manufacturing PCBs and rivet contact points
1996	Atsugi Plant	Manufacturing of conductive paste

\* Since closed due to noise pollution.

\*\* Renamed the Shonan Plant in 1999.

Source: Derived from TW.

As a processor and supplier of precious metals and precious metal products Tanaka Kikinzoku is now first in Japan, ahead of *keiretsu* companies Mitsubishi Metals and Sumitomo Metals, which are, admittedly, essentially mining firms before being manufacturers. Internationally, Tanaka ranks around fourth behind Johnson Matthey (UK), Degussa (Germany) and Engelhard-CLAL (USA/France) (T1; T2). This is a generalised ranking, however, and depends on the product; in bonding wire its is first (T1). It claims to be engaged in the manufacture, research and development of all types of precious metal industrial products and precious metal bullion (TW). With such diversity based on a hard core of expertise it has been able to command 50% of the world's demand for bonding wire used in a wide range of products such as integrated circuits and transistors (T2; TC, 11), initiate the production of printed circuit boards in 1970 (TW), and begin selling Krugerrand in 1980 (TH, 60). It can take direct advantage of the public demand for gold during economic downturns (Sankei Shinbun, April 28, 2002), while continuing to introduce innovative products, like its new platinum coating fluid (Nikkei Sangyo Shinbun, April 25, 2002). Its clientele spans the industries of electronics, automobiles, telecommunications, ceramics, health and environment, as well as the individual in the street seeking personal adornment and financial security (TW).

LME Character of Company. For over one hundred years the Tanaka company had a Tanaka at the helm, although now the current president does not bear the family name. Nevertheless, the LME qualities still prevail and the core business is still paramount. As Mr. Ikeda (T2) was keen to point out, Tanaka Kikinzoku did not go on a land investment binge at the end of the 1980s, like many Japanese companies did, and then keel over with the bursting of the economic bubble. This is because it stuck to what it knew, which is precious metals. The 'first decision' was made at the start when the first president, Umekichi Tanaka, resolved to focus on precious metals, and the second, third, fourth and fifth presidents have not wavered from that stance (T2). In addition to gold, silver and platinum, today this means rhodium, palladium, iridium and so on (TC, i). Around this core are arrayed a copious range of specialised processes as epitomised by the plants shown in Fig. 7.2. Circling these domains of this still unlisted company are a growing number of satellite spinoffs linked by spokes of cross-shareholdings, like Tanaka Kikinzoku Jewelry for the sales of metal jewelry and bullion, Tanaka Kikinzoku Hanbai for domestic distribution of the group's industrial products, and PC Print for the manufacture of special printed circuit boards (TC). A further contribution to the matrix for 'finding solutions' is the research structure. Each manufacturing arm conducts its own research. But this is complemented by the Research and Development Centre established in Hiratsuka in 1990 to carry out R&D for the group as a whole, and this is again supplemented by a third element of basic research commissioned by universities and like institutions, mainly in Japan (TW). From this closely integrated endeavour have so far emanated some 1,000 patents, with nearly 4,000 more applied for (TW). Then, in addition to the company's own international units discussed below, Tanaka Kikinzoku has also entered into joint venture arrangements with Mitsui Mining and Smelting (Tanaka Denshi Kogyo) in 1960 (TH, 56) and Johnson Matthey (Tanaka Matthey) in 1969 (since liquidated) (TW).

Internationalisation. This tie-up approach has also been extended abroad through Electroplating Engineers of Japan Ltd.(EEJA), a joint venture started in 1965 with what is now Enthone-OMI Inc., an American company associated with Cookson Electronics Co. The parent company of the latter is Cookson Group plc, headquartered in London and quoted on the London Stock Exchange (EW). EEJA itself has operating units both in Japan and California producing electroplating solutions, surface treatment agents and related equipment (EW; TW). But overall Tanaka Kikinzoku is a reluctant internationaliser in the sense that, as Mr. Sodeyama (T1) put it, they would prefer to develop and manufacture everything in Japan. Mr. Ikeda (T2) concurred, saying that originally the company wanted to manufacture only in Japan and would have preferred all its customers to import from Japan. Actually he claimed that, in addition, MITI proved an obstacle to Tanaka's desired mode of doing business because of its prolonged restrictions on the export of precious metals (T2). The export of gold was not completely free until 1978, for example (T1).

However, there were other factors that eventually impelled FDI, notably the exigencies of delivery time and cost, including labour costs. Naturally the company would not have invested abroad if there were any question about the local ventures' ability to perform, but the fact is that so far the ventures in Taiwan and South Korea have been kept to low-end, low-profit products which are easy to make and for which it is necessary for Tanaka to retain its market share, such as silver contacts and bonding wire (T2). Mr. Ikeda was of the opinion that the considerable amounts invested abroad were so far not justified by the returns. The strategy, therefore, was to function with the minimum number of manufacturing bases abroad. However, he argued, it is still possible for Tanaka Kikinzoku to meet its global commitments because of *its highly differentiated products*, coupled with the good reputation it has built up with its customers (T2). Other aspects dictating this approach include the fact that the company's business is capital-intensive and is therefore not seeking cheap labour *per se*; its location reference is markets rather than production. But at least as salient is the reality that Tanaka Kikinzoku is an LME competing against giants, which means that its room for manoeuvre, especially on the home territories of

these giants in North America and Europe, is bounded. It can attain global reach with its bonding wire, which it sells to the likes of Intel, IBM and Advanced Micro Devices, but some of its other products encounter stronger rivals (T1).

Specifically, in the postwar era Tanaka Kikinzoku saw its first exports of spinnerets for chemical fibre production depart for Yugoslavia in 1954, and then to India and Taiwan in 1955 (TH, 55), and exports thereafter accelerated from the mid-1960s (T1). A lot of the latter comprised bonding wire and the like in pursuit of Japanese companies which had set up plants in Southeast Asia (T2). This international activity was eventually to give rise in 1991 to one of the company's specialist spinoffs, Tanaka Kikinzoku International, to expand marketing and take overall charge of the group's overseas activities. Manufacturing FDI, subsequent to EEJA, was implemented on the principle of "where there is a market, build a factory" (T1). By 1974, the market in South Korea was growing fast; some Japanese firms had moved there and requested Tanaka to produce locally because they needed short-term delivery. Exporting from Japan would have taken weeks, whereas they wanted the materials within days of ordering (T2). So a joint venture, Hi-Seong Metal Industry, was established to in time supply a whole range of precious metal products (TH, 59; TW). It started by supplying Japanese transplants and thereafter added a Korean clientele (T2). While Tanaka has a 45% interest, the operation is totally managed by the Korean side with no Japanese personnel sent over (T1, T2). In addition to Taiwan in 1986, the only other manufacturing units set up abroad are in Singapore in 1978 and Malaysia in 1995, both of which are actually directly owned by Tanaka Denshi Kogyo for manufacturing semiconductor materials (TH, 60; TW; T1). So this is another example of a strong East Asian bias in the overseas production operations of our case study LMEs. Although there are some sales to the neighboring countries of Thailand, Myanmar and Indonesia from these plants, 80% – 85% of the Malayan output is for the domestic market, mainly comprising the affiliates of its Japanese corporate customers; accelerated delivery time again being the overriding rational for the investment (T2). Other markets around the globe are serviced through representative offices in Hong



Kong and Manila and through liaison offices in Indianapolis and Frankfurt-am-Main (TW).

Role of Taiwan. Among the Tanaka Kikinzoku group's overseas manufacturing facilities, the Taiwan affiliate was the third to appear after South Korea and Singapore (T1). Again, the reason for its establishment was the pre-existence of a substantial customer base, given extra impetus by the predictable impact of the Plaza Accord of 1985 which made Japanese exports more expensive, together with a strategically high host country import duty (T1). A representative office was set up in 1985, followed by a local manufacturing corporation in the following year (TW), managed from the start by Mr. Sodeyama (T1), a fluent Chinese speaker, who has remained in Taiwan for most of the time since. This is to all intents and purposes a wholly owned subsidiary, with Tanaka Kikinzoku International taking over the major share of the stock after *its* incorporation a few years later (see Box 11). The subsidiary was destined to be encouraged from the start as it was engaged in one of the ten industries prioritised by the Taiwanese government at the time, which translated into an initial five-year tax break and low-interest financing (T1). It now purchases some 75% of its machinery and production equipment from sources in Taiwan, while the analysing instruments all come from Japan. A good 80% of the tooling and mould-making is done in-house, a fact which reflects the general upgrading of the affiliate's technological base and attainment of independent capabilities since it commenced operations (T1). It is now being entrusted with some product and process development functions, such as its contribution to bringing down costs by reducing the gold content in its products (T1). Local competition in Taiwan is represented by ten small Taiwanese firms, and a telling signal of where the market lies is that nine of the ten Japanese expatriate staff working in Taiwan are salesmen. This suggests that 'Japanese are selling to Japanese' in the Taiwan market.

Taiwan Tanaka Kikinzoku manufactures and sells electrical and rivet contact points, as well as thick film pastes, in which it is the world leader. In addition, it provides a contact welding service (T1, TW). Of its rivet contact points, 75%

are exported to the overseas plants in China and elsewhere of companies such as Siemens, Tyco, Matsushita and Omron (T1). Taking its exports as a whole, 50% are destined for Thailand and Singapore, illustrative of its role in sustaining regional integration. The rest of the output is sold domestically to Taiwanese and Japanese firms, but none is exported to Japan. On the other hand, the affiliate imports from Japan for sales to Taiwanese companies (T1). There is little scope for Taiwan Tanaka in Europe and the United States because they are already strong in what it produces. The Taiwanese authorities prohibit the export of gold to China, but now both are in the World Trade Organisation, so presumably this ban is due to be overturned and a wider regional role may develop for the Taiwanese operations. And although there is no regional division of labour strategy in place, the Taiwan affiliate and its Chinese-speaking staff are considered a key factor in any moves that should be effected in China from now on. So far, despite its large and growing exports to China mainly from Japan, Tanaka Kikinzoku has not established itself there. This is now under examination by a special team and Taiwan is seen as a base from which activities could be launched (T1). Not least among the considerations here is the fact that Japanese customers in Taiwan are also shifting production over to the Mainland, so it is therefore essential to gauge the degree to which the company's markets are relocating (T2). This example again illustrates how the production networks of Japanese LMEs in East Asia are in a state of flux and evolution, as the emergence of China as market and production base creates new opportunities and challenges. How established Taiwanese operations fit into these emerging networks will be influenced by the capabilities they have developed and the role the local managers can advance for them, as well as the role Japanese bosses allocate to them.

### *7.3.6(c) Articulation*

<i>Articulation Attribute: Density</i>
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Density implies here not just density in product range while in the quest for breadth of application, but also in production location and in manufacturing plant. That is to say, the company concentrates on the production of precious

metals and items made from them at just enough locations to retain viable market reach, and usually at precisely designated plants. Density also refers to the strong inclination to conduct these activities at home in Japan wherever tenable, even as the company strives to elaborate on its international presence. In addition, it points to how Tanaka Kikinzoku along with its various organisational components, including research facilities, factories and affiliates, while maintaining their individual identities, function as a group from the development stage through to marketing.

In this light, whereas Union Tool's operation has been envisaged as concentric circles enclosing the bull's eye, Tanaka can be seen as a core of solution creation by way of precious metal processing technology, to which are attached satellites of expertise. Close in are the factories in Fig. 7.2, a little further out are the affiliates spun off as business has progressed, like Tanaka Denshi Kogyo, specialising in bonding wire and materials for the electronics industry, and PC Print, maker of printed circuit boards. There again, in contrast to Union Tool which is intent on defending its inner sanctum of expertise because of its indispensability to survival, Tanaka understands its strength to be in the ability to address constant change through overlapping incrementalism expressed in an abundance of patents and patent applications.

It is with this posture that Tanaka Kikinzoku looks to the outside world, almost as if in a fortress from which forays are made, based heavily on the superiority of the skills it has accumulated in Japan and the fact that its products are easily transportable. Given these characteristics it has taken two distinct routes to internationalisation. The first is the joint venture, particularly Electroplating Engineers of Japan through which, because of the high level of expertise Tanaka contributes, it is able to reach a global market. This, in fact, is a classic strategic alliance approach where closely defined technical capabilities are married to achieve much more extensive reach than the individual partners could muster on their own. The second is FDI, but FDI only indulged in when clients cry out for it and when the alternative would be loss of market. The FDI ventures set up in Taiwan, South Korea and Malaysia are all of this nature. Here the *market*

priority is based purely on local client demand, not on the need to cut costs predicated on a broader global strategy. Internationalising articulation for Tanaka Kikinzoku is a matter of beaming out from a dense domestic core with a marked tendency to demur on manufacturing FDI.

***Key Points:***

- \* reluctant internationaliser regarding FDI, but not sales*
- \* Taiwan has important role → evidence of upgrading*
- \* Taiwan's role changing with emergence of China*
- \* Japan retains core functions*

## **7.4 Summary**

### ***(a) Approach***

From the 110 LMEs, five were abstracted as case studies. Mabuchi was a test case early on in the study, introduced by an acquaintance. With respect to the other four, Pentel, Shofu and Union Tool were first contacted through their British affiliates. Subsequently, their Taiwan affiliates and that of Tanaka Kikinzoku responded to the letter and questionnaire sent to them. Interviews were held in Taiwan and Japan with Pentel, Union Tool and Tanaka Kikinzoku, in Taiwan only with Mabuchi, and in Japan only with Shofu. Six of the interviews were conducted in Japanese, and two in English.

This case study approach was intended to complement the quantitative analysis in Chapter Six by adding depth of vision, especially the understanding of motives and strategies, to mainly statistical data. On the other hand, five case studies were deemed adequate to avoid undue specificity. The results of the interviews were incorporated with collated data in each company presentation. Each presentation comprised accounts of the company and its product, the LME character of the company, its internationalisation progression, and the role played by Taiwan in the quest for global reach. Finally, each case study LME was ascribed an articulation attribute to bring out the particular quality of its internationalisation given this attribute.

### ***(b) Overview***

All five companies revealed strong LME qualities for the period from the 1960s to 1990; they are all highly specialised with a powerful commitment to their core competence. Upon their internationalising, which was usually early in their modern corporate evolution, there is evidence that the initial overseas investment was made in proximate locations. Although Taiwan was the inaugural FDI location for Pentel alone, Mabuchi, Shofu and Tanaka Kikinzoku did see their first investments in the East Asian region, and Taiwan followed on quickly thereafter. It can be noted also though that, as shown in Fig. 7.3, as a group they

reveal a sequence of timing in their initial investments in Taiwan, which could be correlated with their type of business and the stage of Taiwan's development.

Their current degrees of commitment to Taiwan in their respective internationalising strategies vary considerably, though after a long period of commitment and a history of re-investment and upgrading. Pentel remains positive, although with reservations about the regional placement. Mabuchi is all but withdrawing from Taiwan, although this is only to deepen its attachment to East Asia as a whole. Shofu takes a practical approach but is somewhat negative regarding the international implications. Union Tool is aggressively positive. Tanaka Kikinzoku is essentially favourable to Taiwan itself while remaining diffident about expansion through FDI overall. In some cases, the emerging role of China is causing a rethink about the future of Taiwan operations, indicative of the 'never finished' nature of the international production systems of internationalising LMEs.

### *(c) The Five LMEs and Taiwan*

Again with reference to Fig. 7.3 it is possible to draw out the particular significance of the relationships the five case study LMEs have had with the host country, Taiwan, in a time sequence. By the end of the 1960s, Japan's labour surplus no longer existed and wages were rising apace. The 'push' factor was the key motivating force. At the same time, Taiwan's export-orientation policy was taking off. Pentel was looking for lower labour costs and a location for making some of the simple end of its production line. Subsequently, with the improvement of manufacturing capabilities Pentel gained confidence in Taiwan, relied on it for more and more inputs, and increased its investment four times over thirty years, a fact also induced by the amplification of the local market as the Taiwanese economy grew. Taiwan Pentel has become a fully-fledged member of the international team in its division-of-labour role.

By the turn of the decade, the mounting competence of the labour force attracted Mabuchi, which was seeking to supplement its overseas production capacity while avoiding Japan's high wages. It extended its plant space rapidly,

but progress in other parts of the East Asian region – especially China – soon undermined Taiwan's temporary cost advantage. Nevertheless, Mabuchi has retained the island's services by using it as a base for the manufacture of equipment for corporate use. Even if Mabuchi should completely withdraw, historically at least, Taiwan's imprint on that company's internationalisation process is assured.

Mounting overall costs in Japan constituted the underlying motive for Shofu's attempts to seek out potential manufacturing venues overseas. So the 'push' factor was still very much in evidence. *However*, the company also wanted a proximate location where employee training and competence were up to the standard for the task. In this light we see the 'pull' factor now presented by Taiwan. In fact, by the mid-1970s the scales of Japanese 'push' and Taiwanese 'pull' were beginning to balance out, reflecting Taiwan's progress economically and industrially and the advancing mutuality in its relations with Japan. The simple but effective division-of-labour role the Taiwan affiliate achieved with the parent company in Kyoto is evidence of this.

Taiwanisation, industrial planning and industrial upgrading got underway in the 1970s and were in full swing by the 1980s. Increasingly sophisticated needs were partnered with policies designed to deter imports of advanced inputs while encouraging inward FDI. Rising manufacturing capability reinforced Taiwan's 'pull' incentives, in that local input needs were strong enough to counter the potential deterrent of fast-rising wages. It was in this environment, with the take-off of the electronics industry, that Union Tool entered Taiwan. In short order, its Taiwan affiliate has become fully occupied with the demand for its product from that country's state-of-the-art industries as a contributor to the upgrading of local output.

Shortly after Union Tool came Tanaka Kikinzoku for fundamentally the same reasons. The local demand called for Tanaka's presence. Now we are definitely in the domain of 'pull' because, as has been stressed, Tanaka Kikinzoku is a reluctant foreign investor. For most of its product range, Japan's high wages are not an issue. But, along with responding to customer demand, Tanaka could

align itself with host country planning because it was in one of the ten industries prioritised by the Taiwanese authorities at the time. Having arrived, it took advantage of the high levels of training and manufacturing capability available to reach a point where most of the tooling is now done in-house. The local affiliate has also been assigned a regional role with half its production going to East Asia. In addition, the affiliate's significance with respect to the company's entry into China is recognised, which possibly has global implications.

When looked at as a whole, what comes across very strongly regarding the relationships between the five case study LMEs and Taiwan is phased complementarity, which owes its consistency to the attitudes of both sides. It befits the character of the LME as elaborated in this thesis; it underscores Taiwan's designation as an Asian NIE. That is to say, the LMEs described in this chapter have all applied their strategic philosophy of articulation in their dealings with Taiwan. Their approach has been studied and measured because moving an element of the 'chamber' to Taiwan is a serious business and locating there is a serious proposition, not to be abandoned lightly even in Mabuchi's case. Although the actual timing of particular overseas ventures by these companies has been fortuitous to an extent (especially in the West), getting established in Taiwan – whichever order it occupied in the sequence of overseas ventures – seems in all cases to have been a very deliberate and purposeful move strongly influenced by proximity in plans which, if in no way global at the outset, would gradually take on that potential. Apart from the geographical, cultural, linguistic and historical aspects of proximity, a very important further element has been the technological aspect, with Taiwan upgrading over time but not able to achieve all the linkages. The five case studies, and likewise the 110 sample LMEs as a whole, have been contributors to making good the linkage gaps over the past forty years. At the same time, because of its proximity and its growing competencies, Taiwan has proved to be an effective partner for Japanese LMEs articulating their bounded options in the global arena.



**Fig. 7.3 Timing of Investment in Taiwan by Case Study LMEs**

**Japanese need = PUSH**

Rapid expansion	Rising wages	Higher costs	Regional division of labour	Response to advanced demand	
<b>Pentel</b> (1968)	<b>Mabuchi</b> (1969)	<b>Shofu</b> (1974)		<b>Union Tool</b> (1984)	
				<b>Tanaka Kikinzoku</b> (1985)	
<b>1965</b>	<b>1970</b>	<b>1975</b>	<b>1980</b>	<b>1985</b>	<b>1990</b>
Export orientation	Growing labour competence	Host country planning	Industry upgrading	Increasingly sophisticated input demand	

**Taiwanese need = PULL**

**(d) Key Points**

To continue the generalisations about the five case study LMEs with reference to the key points given at the end of each account in this chapter, early internationalisation in their postwar modern phase of development, either in the form of exporting or overseas investment was common to all. This again bespeaks their character as LMEs or LMEs in the making; high-quality products can travel. While there was an element of spontaneity in how things actually got underway for some, internationalisation was never simply the result of external prompting. Confidence in the product was there and action was internally motivated. The second point in common is that Taiwan was early on the list as a location for manufacturing, if not for sales, although the situation regarding the latter was transformed with the passing of time and the development of the Taiwanese economy. In fact, with the timing of their first investments the five show the process in motion; Pentel initially came in just for exports, Union Tool ends up not being able to export because it is overwhelmed by Taiwanese domestic demand.

Third, technology transfer is at a premium; Taiwan is required as a *junior* partner in a division-of-labour exercise for extending outwards to the regional and/or global marketplace. This strategy is hardly unique to LMEs, however the

consistency with which it is practised among these case studies suggests a powerful consciousness of the 'chamber' which must be guarded at all costs because it is the very lifeblood of the LME. That having been said, the fourth point in common is that they have tended overall to take advantage of growing competence in Taiwan to upgrade technology at their affiliates' factories. These two points reveal the line of tension along which LMEs with bounded reach internationally must pass along; while it is necessary to staunch leakage of core competence know-how, to internationalise effectively – which among other things means maintaining superior standards of output – affiliates must be able to perform at a high level. On the other hand, to an extent this depends on how the division of labour is parcelled out and for what reasons, and this can be related to the emergence of China, a factor very much on the minds of three of the five, reflecting in turn the still very significant pull of regional proximity for all five in their internationalisation strategies.

#### ***(e) Articulation Attributes***

So Taiwan has been important, if not crucial, for all five LMEs in their articulation strategies aimed at the outside world. The articulation attributes allocated to each of them can be employed to project the vision of how they have performed as they internationalise on the global stage.

*Case Study 1: Pentel* – extended its talent for publicity abroad, manipulating it to gain reach with limited manufacturing presence but global markets.

*Case Study 2: Mabuchi* – used its knack for positioning to get in ahead of the competition, relocate manufacturing internationally, and balance market and production orientations in its key markets, notably the United States and East Asia.

*Case Study 3: Shofu* – had a very effective linkage network with key professionals in Japan but found difficulty adapting it to internationalisation; nevertheless it developed a clear regional division of labour within East Asia.

*Case Study 4: Union Tool* – surrounded its ultra-focus on the drill bit with layers of receding intensity which allowed it to devise a concentrated internationalising strategy, while keeping a lookout for opportunity or threat; like other LMEs, though maybe more than most, it kept key strategy and technology generating functions at home and in-house.

*Case Study 5: Tanaka Kikinzoku* – relied on its density of operations at home to project itself outward only when necessary to safeguard and expand its international interests; although the changing position of China may open up a new phase of internationalisation, impacting on established operations.

***(f) Role of Case Studies***

The five LMEs described in this chapter provide insights into the 'dynamics' of LME internationalisation which was expected from the extended case study approach, and therefore amplify its justification. This approach reveals much more than one usually obtains from surveys. At the same time it can convincingly corroborate survey findings. For example, all five case study LMEs provide evidence that they have contributed to the upgrading of the Taiwanese economy as they fill the 'technology gaps'. Although this has been a mutually beneficial exercise – and this is something that only case studies like these can clarify in detail – it has nevertheless been conducted in the individual LME's self interest as reflected in the selective transfer of technology to suit its own purposes and protect its own position. Implications of how these LMEs' activities add to the economic integration of the East Asian region are also given extra definition, notably in how they employ their Taiwan affiliates to extend their reach into the region, and notably for some into China. Here, the case studies have provided some insights into the internal debate as it unfolds within internationalising LMEs, rather than simply into actions forthcoming from the decision-making which results. Finally, these detailed 'written-through' case studies will prove beneficial for other researchers who can use them as evidence for interpreting aspects of ongoing regional integration and trends in globalisation additional to the interpretations placed on the data in this chapter.

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## *Notes*

(1) See question 6b. in the Appendix. As well as being interviewed in Japanese, Mr. Sakamoto responded to the Japanese version of the written questions he had received in advance by making notes in the margin. In this case he simply put 'No'; Pentel Taiwan did not act as a hub either regionally or otherwise. The problem could be in the translation, which in Japanese reads *chukeiteki kino*, literally translatable as 'relay function', which has a somewhat different nuance to the English. The interview with Mr. Mumo was conducted in English, so the word 'hub' was used.

(2) As of 2001, the Ministry of Health, Labour and Welfare.

(3) This book, published to mark the company's centennial, is actually entitled 'Precious Metals Science and Technology: An Introduction', and contains considerable information about Tanaka's historical development.

(4) This company's chosen 'English' name is in fact the original Japanese transliterated into alphabetic letters: Tanaka Kikinzoku. It is translated as Tanaka Precious Metals Industries in the company's English-language catalogues.

## Chapter Eight

### Conclusion

#### 8.1 Introduction

'Economic orientation may be a matter of tradition or of expediency. Even in cases where there is a high degree of rationalisation of action, the element of traditional orientation remains considerable.' (Max Weber, 1947:166)

From the end of the Second World War to the 1960s, the world was seemingly evolving on a fixed course towards integration. Globalisation, it can be said retrospectively, remembering that the term had yet to be coined, at that time meant simply world integration, or convergence, and especially – although by no means exclusively – economic integration. This could, and did, give rise to theorising posited on such a mono-directed trajectory (cf. Hymer, 1960; Vernon, 1966). The emphasis was on the large firm, while the study of smaller firms was marginalised if not regarded as a trifle eccentric. By the 1970s, however, observers of the general process of what came to be called globalisation began to detect anti-integration, disintegration and destructive elements. The world was not moving along a single inexorable path as previously supposed (Miyanaga, 2000). Local societies were reacting in different ways; or perhaps it would be more correct to say that the differences inherent in local societies around the world and how they responded to the pressures of globalisation and/or westernisation and modernisation varied and were continuing to do so. In this light it is arguably justified to restate the Weber quote above and say that economic orientation is a matter of tradition *and* of expediency.

Certainly the Japanese LME as it has evolved in Japan and subsequently addressed the outside world in the postwar era can be envisaged as such a phenomenon, that is as an institution with traditional roots re-embedded in the process of reflexive modernisation capable of rationally engaging progress on its own terms. It can be seen as one way in which 'late-developer', Japan, has addressed the antithesis as represented by westernisation, otherwise referred to as modernisation (Beck, Giddens and Lash, 1988). While bearing in mind, then, that the LME is not exclusive to Japan, the mission of this thesis has been to trace the course of internationalisation of the Japanese LME from its origins and to see if it achieves this in ways different from that recorded in the literature

about both large and small firms. Is there a distinctive LME quality which can add to the knowledge concerning the internationalisation of the firm and thereby contribute to the unfolding awareness of the multifaceted nature of globalisation?

In Chapters Two and Three, a series of propositions were postulated with respect to each of the concepts introduced, namely the LME, articulation and globalisation, to which was appended in Chapters Four and Five a set of more specific propositions concerning the LME in Japan, the role in globalisation of the region here represented by East Asia, and within that the role of Taiwan, as arguably an exceptionally attractive host country environment. Chapters Six and Seven then looked at how Japanese LMEs have actually internationalised from the aggregate and individual perspectives respectively. The stage has now been reached where the propositions can be linked to the descriptive analyses to see how well they fit. This is done by restating each proposition and commenting on its validity. That having been done, suggestions are offered regarding the possible wider implications that the LME has as actor in the globalising environment and as concept in globalisation theory.

## **8.2 Review of Propositions**

### **8.2.1 The LME**

#### **PROPOSITIONS**

##### ***P1***

*The LME is a concept which derives its definition from three key elements: size, type and stage. That is to say, it has a minimum of 200 and a maximum of 1,999 employees at its home country base; it is highly specialised, having a self-defined and self-contained core competence; it is already established as a medium-sized company occupying a leading position in its selected sphere of business. These elements have a direct bearing on the distinctive way in which the LME conducts its affairs.*

Generally speaking there has been an evolution in thinking with regard to the relevance of firms of different sizes and characteristics. From being the orphan of economic theory fifty years ago, the study of the small firm exploded into the limelight in the

1980s. But such attention is still not accepted in all circles; among macroeconomists, especially, the belief is still strong that only large firms and TNCs direct and order the economy because of economies of scale; small firms just drift along in their wake. On the other hand, most scholars specialising in the study of SMEs think that the biggest difficulty they have to contend with is the extreme heterogeneity with which they are characterised. This being so, it is difficult to create viable theory to encompass them as a totality. This has led Julien (1997), for one, to suggest that medium-sized firms be detached from small firms in the debate because, according to him, the former have started to conduct business in ways that to some extent resemble those of large firms. The affirmation of the LME is just such an exercise, remembering that in addition to being medium-sized it is also a *leading* company in its chosen line of business.

Moreover, in the Japanese setting the LME has been shown in this thesis to be more than merely a successful SME which has parlayed success into survival, above-average size profitability and an international presence. It possesses a distinctive identity; it is a 'chamber' of core-competence which articulates its attributes. One counter-argument to this could be that in fact not a few of these LMEs can be traced to *keiretsu*-type links and they are not as independent as depicted here. This can be rebuffed by pointing to the high proportion of LMEs discussed in the pages of this thesis with individual founders and family ties over generations, as well as close managerial control over long-term strategic planning. What is more, Nakamura and I do not claim that these are sharp distinctions. There are large grey areas. The sharp distinctions are with the dual-economy theorists who see the Japanese economy simply in terms of large and small, assembler and subcontractor. But the objective of analysing an economy is to unravel it. It is not to polish an intractable ball of received opinion. It may be that by isolating LMEs we are ignoring, or at least downplaying, linkages that would be seen in an idealised Anglo-Saxon depiction as action within a group rather than independent action. But without taking concepts like the LME as analysing tools, inroads of understanding as to how the Japanese or any economy works, and how globalisation can be manifested in different ways, will not be forthcoming. Having been argued and subsequently proven to exist, therefore, the LME is justified as a concept to drive economic analysis.

Proposition Evaluation: LME is a valid concept in itself and can be applied effectively in analysis of processes of internationalisation (of the firm) and globalisation (of the economy).

### 8.2.2 Articulation

#### PROPOSITIONS

##### **P2**

*Articulation characterises a strategic approach entailing the exercise of bounded options within a field of sustained mobility. It captures well the strategic philosophy of the typical LME, while not being exclusive to it. Articulation is a gradualist, incremental approach which entails movement of the firm as a unit of embodied core competence. It can be contrasted with the creation of new competences within the business entity (adaptation) and the attachment to competences outside (flexibility). Articulation and the core competence comprise a symbiosis, the source for both being the 'first decision'.*

The concept of articulation as delineated here is born out of the desire to underline the fact that organisational dispositions and requirements can trigger a variety of approaches. It is posited between *adaptation*, which essentially entails the internal shifting of resources (and may be said to be the key strategic attribute of the large TNC), and *flexibility*, which here is taken to imply a relatively random diversification of activity often with at most incidental links to any previously acquired capabilities (and which may be a characteristic of more or less successful SMEs). By contrast, articulation is meant to suggest that the core competence, or closely connected set of core competences, fill the 'chamber', leaving little if any scope for adaptation in the way suggested above. At the same time, so much commitment has been sunk into the core competences that the value of what has been created is far too evident to be discarded, to the point that flexibility as defined here would be a wasteful dispersion of accumulated capability, a distraction of effort, and a route to vulnerability. Articulation as a concept, therefore, is an attempt to illustrate the movement of the type of organisation (or organisation encountering in a given way a certain constellation of circumstances) where there is a high degree of tension between capabilities and



constraints. The capabilities impel a forward progression; the constraints trim the wings of extravagance.

This, in turn, encapsulates the nature of the LME's sphere and scope of operations as described in Chapter Two: the offspring of powerful entrepreneurial instincts often of a founder with a very singular sense of direction, intent on leadership in a tightly defined area of expertise, and driving a wedge of knowledge differentiation comprising attributes between itself and latent competition to counter constraints imposed by size. The limitations that follow in scope and opportunity for the LME (as against the TNC) in internationalising are well illustrated by the aggregate sample in Chapter Six, while the tension line along which choices are made is apparent for both the vignettes at the end of that chapter and the full case studies in Chapter Seven.

Proposition Evaluation: Articulation is an appropriate concept to be applied here, particularly for LMEs; the concept stands alone, and is not exclusively the preserve of LMEs, but it is definitive of their strategic philosophy and orientation throughout their domestic and international evolution.

### 8.2.3 Globalisation

#### PROPOSITIONS

##### *P3*

*Globalisation is a process which at the same time entails extension (reach) and intensification (depth). As theory it is the culmination of attempts to interpret integrative forces, starting with trade between nations, then addressing the rise of competing hierarchical firms, and the evolving relationship between the nation and the firm. The concept of globalisation itself emerged as a result of rapid progress in technology and communications, the advent of the TNC and the acceptance of liberal politics; with the development of economically integrating multinational regions, the workings of globalisation have become multilayered and multifaceted. This has provoked a need to study globalisation from various angles and the LME, because of its distinctiveness, character and contribution presents one such opportunity.*

As remarked above, since the 1970s, reactive as well as proactive patterns have been observed in the globalisation process and, in a sense, the Japanese LME can be interpreted as a response to the antithesis of modernisation. However, the position taken in this thesis overall is that globalisation, particularly as it pertains to economic evolution, is essentially an integrative phenomenon; its integrative force ultimately overrules and reshapes reaction. Because of its reach and depth, moreover, it embraces within its progression locations and organisations of all types and sizes. It has accelerated communications and transactions, multiplied business clusters and regions, impelled infusions of FDI, given birth to a host of internationally operating corporations, and lowered the drawbridge for technology transfer.

What this has done for LMEs, with their concentrated core competences, is to facilitate their manoeuvres abroad because of the specialised input they provide (often to already internationalising customer firms) and the speed with which it can be supplied. The aggregate sample given in this text is ample evidence of the fact that LMEs are internationalising, and this internationalisation is related to their attempts to either *extend* their core competences into markets outside their original domestic markets, or to *maintain* their core competences by seeking to appropriate overseas production locations when original domestic locations suffer rising costs and/or shortages. More to the point, many of them *started* to internationalise precisely when globalisation as a distinct phenomenon was beginning to take shape. Their distinctive qualities as internationalisers has been brought out more effectively through analysis of the five case studies and this is discussed further below. Suffice to note here that to say that globalisation is a regionally structured process is to admit to the *reciprocal role* regionalisation plays, because it is inevitably incorporated into the extension and intensification of globalisation. It is not to say, however, that regionalisation constitutes the preordained conduit to globalisation. Again, the important point to stress, and indeed an aspect that has been underlined by this research into internationalising LMEs, is that it is not correct to think of globalisation as having a single set direction (Giddens, 1994), or as ever being a finished process.

Proposition Evaluation: Globalisation is an essential concept to use in this study provided that it is recognised that its application here is restricted to economics and that regionalisation is one of its key manifestations.

#### 8.2.4 The Evolution of the Japanese LME

##### PROPOSITIONS

###### *P4*

*Japan's keiretsu-dominated domestic industrial market structure, liberalising external market relations and certain aspects of industrial policy have been particularly favourable to the formation and evolution of LMEs, making them an increasingly significant part of the evolving industrial structure. They are distinguishable from the general SME, from which category most of them have originated, by their concentrated emphasis on their core competence and their ability to assume a leading position in their chosen line of business. This has placed them very favourably for extending their activities abroad, notably to the immediate region of East Asia.*

Reasons for Japanese LME strengths largely come from *within* Japan's economic/industrial structure and this has then been rendered extra definition by the exigences of the times. In fact, some of the characteristics that have been ascribed to Japanese LMEs, such as commitment, loyalty and long-termism are usually regarded as common to the Japanese business world in general, especially when contrasting with the practices of other countries and societies (cf. Whitley, 1992). So the seedbed for distinctive, relatively independent companies goes back a long way and has certainly been there at least since Japan's initial industrialisation moves in the nineteenth century, though in the later 20<sup>th</sup> century it was the independent and focused leadership of the LMEs that gave their distinctive attributes time to develop. Tanaka Kikinzoku is evidence of the tradition, while Shofu shows the tradition blending in with the early twentieth century, or addressing modernisation in other words. Then the circumstances for stimulating and sustaining the LME was further elaborated in the postwar era due to necessity to survive, the overriding importance of economic growth, the calls from outside for more accommodating reciprocity, and the transforming fashion in which the economy and its component parts were viewed. Pentel symbolises the survival instinct, Mabuchi the response to economic growth, and Union Tool the need to embrace a more

demanding and rapidly changing world. Added to which, in all being established from the mid-1940s to the early 1960s, the five vignette LMEs underline the emerging significance of this kind of company during that time and thereafter. Subsequently all ten companies, along with the rest of the aggregate sample, in a sense outgrew their home environment and sought further expansion by establishing themselves abroad, notably (but far from exclusively) in East Asia.

Proposition Evaluation. It is fair to say that the particular economic and political circumstances that prevailed in the postwar era in Japan contributed to the evolution of LMEs, as long as it is also borne in mind that the roots for this kind of company go back much further. They have extended their activities with particular force into East Asia, which has served as both favoured production platform in a regional division of labour, evolving in lagged parallel to that of Japan itself.

#### **8.2.5 Regionalisation as Essential to Globalisation**

##### **PROPOSITIONS**

###### **P5**

*Regionalisation is an essential component of globalisation. Especially for smaller firms like LMEs, it presents proximity and an intermediary scale which facilitate their process of internationalisation. The evolution of the region, 'East Asia', within this overall process of globalisation has been strongly influenced by the activities of internationalising Japanese TNCs and LMEs. In addition to being contributors to regional growth and integration, the LMEs have at the same time taken advantage of proximity and intermediary scale to advance their own programs of internationalisation.*

Regionalisation is essential to globalisation in that it is one of the indispensable agents for realising intensity and therefore depth of activities. There is also evidence that the multinational region offers an arena for the smaller firm to internationalise because of its proximity and intermediary scale (cf. Anderson, 1995; Duchéneau, 1995). Japan and Japanese firms in general have been seen in Chapter Five to have been significant investors and contributors to East Asia's rapid economic expansion since the 1960s

driven by manufacturing and FDI. Japan was the first country within the region to use it for extending its base of initially labour-intensive operations. Thereafter, under the influence of liberalising legislation at home and 'shocks' emanating from abroad, Japan rapidly enlarged its presence in East Asia, especially for manufacturing purposes (in contrast to the greater spread of investments in North America and Europe). In so doing Japan's contribution to the East Asian region evolved in nature over time: countries like Malaysia and Thailand, having been initially reckoned as cheap-labour locations on minimally discriminating criteria, came to be more finely defined in terms of specified roles because of the skills they had attained, not least due to Japanese FDI in the first place. This process subsequently achieved the depth of networking clusters and intraregional complementarity with the arrival of parts makers and subcontractors, many of whom can be classified as LMEs. These latter have been notably effective in 'filling the gaps' in East Asian manufacturing development through linkage, including gaps consequent upon industry policy favouritism for large state run enterprises in countries like Taiwan, or consequent upon the preference for diversification over technical focus in the strategic orientation of Chinese-owned SMEs. Restricted by limits imposed on them by the home environment and those inherent in their own core-competence definition, Japanese LMEs took advantage of the demands for technological upgrading and specialist inputs in the region to become key influences on the upgrading of some national economies other than their own. The aggregate sample of 110 LMEs in Chapter Six makes a good case for the prominence of the East Asian region in Japanese LME internationalising strategy because of the weight in numerical terms of their presence as represented by their manufacturing affiliates. In addition, the vignettes in Chapter Six and the case studies in Chapter Seven paint a convincing picture of a positive economic and technical impact on the national economies where they have a presence.

Proposition Evaluation: The region does hold considerable attraction to the internationalising smaller firm, and East Asia has benefited due to its proximity and intermediate scale to varying degrees from Japanese firms investing there, including LMEs. The pull of East Asia for LMEs, however, is a major, but not overwhelmingly dominant factor in their internationalisation strategies. Moreover, the role of different nations within the intraregional division varies over time, as disinvestment/re-

investment alters the picture, and as new locations emerge as both production-attractive and market-attractive sites, notably China.

#### 8.2.6 Taiwan as Attractive Host Country

##### PROPOSITIONS

###### *P6*

*Taiwan, as a proactive, relatively early yet relatively structurally developed host for FDI, has (i) been an attractive location for foreign firms especially in certain specific industries, and (ii) been able to utilise FDI for effectively leveraging its industrial upgrading and economic growth to a relatively 'high' stage of development. Inward investing Japanese LMEs have played an important role in implementing and complementing this, while benefiting from what Taiwan offers as a location for instigating their own internationalisation strategy through incremental articulation, often as a 'first choice – first time' location in such strategies.*

The account of Taiwan's growth in this thesis leaves little doubt that in overall terms the outcome has been favourable. Despite contending political and economic postures early on, these were ironed out by circumstance and survival instincts. Prior infrastructure put in place under Japanese colonialism, together with a ready market in the West and a commitment to learning, comprised the springboard for take-off. It has also been stressed that specific industries, especially the electrical and electronic, have been particularly effective in both stimulating growth and attracting foreign investment in general. Taiwan has utilised this situation to achieve a status as a specialist location for given industries. Akamatsu (1961, 1962) has portrayed the East Asian economy as assuming the same formation as a school of flying geese in which Japan is in the lead, followed in the next row by South Korea and Taiwan. Although this model is a contested concept (cf. Bernard and Ravenhill, 1995), it can be usefully employed here to indicate that the East Asian nations are of different technological and industrial levels of development relative to each other and to Japan. Hence, in addition to the other aspects of proximity, we have here added the notion of 'technological proximity' which

arguably gives another fillip in Taiwan's appeal to the leader Japan and which was identified as an attraction attribute of Taiwan for Japanese LMEs in Chapter Five. It helps to generate a simple logic which says that Taiwan, with its technological capabilities close to those of Japan when compared with almost all of the rest of East Asia, but still a few rungs below Japan, presents an all but irresistible strategic progression for Japanese LMEs, especially if we recognise that LMEs are sometimes slow, nervous and conservative overseas investors initially, and thus likely to favour 'known' locations for first or early ventures. What is more, those differentiating rungs can also represent missing links which can be (partially) made good in order for Taiwan to come up with an enhanced package of technological expertise, which in turn may ensure subsequent re-investment by the Japanese LME.

This, as has been demonstrated in this thesis, is where many of the LMEs in the aggregate analysis have made their stand in Taiwan. Especially as Taiwanisation has taken root, they have been able to take advantage of the situation for their own expansion while playing a complementary role by compensating shortcomings and ensuring linkage for upgrading of Taiwanese industry, both suppliers and downstream users. Part of the reason for this is found in Taiwan's weak capacity for proliferating such companies. But the LMEs themselves, in aggregate, have also exhibited a strong inclination to utilise the advantages of proximity as presented by Taiwan (and Taiwan within the East Asian region) in a strategically constructive fashion: they have consciously benefited from the competence of the Taiwanese workforce, positioned their TMAs' functions in an interplay of intraregional sourcing and marketing to a considerable degree, and related Taiwan to a greater or lesser extent to regional and global manufacturing strategy via product and process upgrading. But again, as with the East Asian region as a whole, the parsimony of this contention is modified when attention turns to the vignettes and the case studies. The lines of this simple logic are more nuanced on closer analysis, which also yields examples of LMEs internalising or withholding technology, or confining the Taiwan venture to a subordinate role. And in every case study the corporate functions and R&D remained rooted in Japan.

Proposition Evaluation: Over the past four decades Taiwan has proved itself an attractive host country for inward FDI, a situation both the Taiwanese and investors have been able to take advantage of effectively. This includes a lot of Japanese LME

investors, but with the proviso that closer study reveals considerable variation in the positioning of Taiwan in their individual strategies, and important limits to the generally positive picture of industrial upgrading that the LMEs have brought to Taiwan.

### **8.3 Research Approach and Applications**

#### **8.3.1 Combined Quantitative and Qualitative Approach**

Finally, it is now possible to comment on what has been learned through a combined quantitative and qualitative research approach for studying the internationalising LME and how effective the LME is as a concept for analysing aspects of globalisation. It should be borne in mind here that the quantitative study in its essentials preceded the qualitative, that is, they were done one after the other and not simultaneously. The comments here, therefore, can adopt the same pattern, first noting what the qualitative examination confirms concerning the quantitative analysis and then stating what it adds. To start with, there was a fairly strong representation in both of one area of industry, electrical and electronic. Both analyses showed that Taiwan was the initial or close to being the initial investment location for many LMEs on the course to internationalisation. And they both demonstrated that having set up in Taiwan, there was a strong sense of commitment leading often to increased investment. Upgrading of operations was also a common feature, as was the appreciation in the main of local personnel. There was a significant predilection for the East Asian region, with respect to both exports from Taiwan and further investments. As such, the importance of proximity in the internationalisation process of these LMEs is established.

What the qualitative approach adds is a picture of the LME in all its dimensions. In fact, because the LME as a concept is a compound of size, type and stage, the qualitative is indispensable. The concept is dynamic, representing movement through time and space and, thereafter, at some instance in the process of examination can only be looked at as an individual unit to see what exactly is happening, and even more important *how* it is happening. Reference to the articulation attributes helps to elucidate this. Publicity, positioning, linkage, ultra-focus and density are abstractions intended to capture the fundamental forces driving these individual companies, and they cannot – or only with difficulty and incompletely – be put to the statistical test. They are essentially holistic representations drawn from viewing the individual firm's existence and actions as a



whole and cannot then be dissected with the idea of having the component parts serve as devices to investigate other companies. That is the work of quantitative analysis using different references. More to the point, because these individual firms occupy leading positions in strictly delineated areas of business which they themselves have consciously defined, they are unique. So, although generalisations about their FDI, their attitudes towards overseas locations and so on are perfectly in order, because of its own closely guarded self-definition, how exactly the individual LME cuts its way through the globalisation thicket is unique to it. This, in turn, is where the LME concept contributes to theory. Because of its success and leading position, considerable information about the LME is accessible for study and analysis. And because of its tight definition the LME can be tracked *as a unit* in the globalising environment while as a concept being used to probe the globalisation process. The quantitative analysis then comprises the screen within which the individual LME unit enacts its unique contribution, which can only be the province of the qualitative analysis.

### **8.3.2 Applications and Further Research**

The LME can be seen as fact and concept. With respect to the first of these, the LME is also a fact whose progress can be followed with comparative ease. In that they are devoid of the impedimenta of Chandler's (1990) giants, the manoeuvring of LMEs can be pursued more easily as an entity, just as the medieval Swiss militia unit would have been easier to observe than a huge French army. Japanese LMEs, applying their specialist core competences and their strategic philosophy of articulation, are visibly establishing themselves as internationalising firms of a distinctive type. Having initially developed under Japan's particular industrial structure, then progressed by way of FDI into the immediate East Asian region – where Taiwan has been a very significant component – they have advanced their interests and contributed to the industrial and economic integration of the region and its member countries in a progression which is relatively clearly outlined and that can be traced in considerable detail. In internationalising, moreover, they have not sprawled amorphously across space; their efforts are crystallised into readily discernable patterns, which again are relatively easy to follow. As fact, also, they present a type of business approach which could be emulated by others, both from the standpoint of the general character of the LME as described in this thesis and from the standpoint of the particular attributes of the

*Japanese* LME because of the trends of influence and reference that may transpire in the future. To expound on this latter point, the world will continue to change, and just perhaps in ways more amenable to Japan's way of doing things. "Another decade or two and the weight of East Asia in the whole world economy could seriously eclipse that of the United States and of Europe," to quote Dore (2000:225). The Japanese LME, assuming it sustains its strong internal and external loyalties, long-termism and commitment to core competence, is unlikely to be a candidate for dismantlement to satisfy stockholder demands in an Anglo-Saxon fashion. It could remain for a long time as fact and reference as it internationalises, while benefiting and servicing a burgeoning regional economy.

As for concept, the argument has been emphasised in this thesis that the growing complexity of globalisation calls for new analytical tools. As with any other academic sphere of study, there is a tendency for angles of perception to take root. To take an illustration from political science, Muramatsu (1997) has noted that in a country like Japan that is *considered* centralised, there is very much less interest in community power structures as there is regarding the United States which is assumed to be decentralised. Instead, as far as Japan is concerned, the concentration is overwhelmingly on intergovernmental relations. Prior categorisation has dictated the selection of subject matter; the protocol of observation has been lodged and it is difficult to reshuffle the order of conceptions. The study of economic globalisation, comments made in the opening paragraph of this chapter notwithstanding, is not immune from this. In its case, discussion of the subject unerringly lists towards largeness; large firms, large money, large geographical settings, and so on.

Elements of this approach can be gleaned by weaving together one historian's view of globalisation, a working paper on global production networks, and a recent front-page article about Toyota in Japan's leading financial newspaper. Michel Beaud (2000) sees capitalism in its new globalist guise as the creature of the strong states and big firms in the Triad; they not only control a large part of commercial production, but also the means of financing, scientific research and technology, and the capacity for innovation. The combination of key technologies which govern the workings of the world economy are mastered and constantly renewed by a small number of firms which are integrated into networks or systems possessing their own logics and norms. These firms are large

or very large, controlling notably the information, communications and multimedia, biotechnology and space industries. They occupy two strategic spaces, those comprising the basic technologies and those comprising the combining of these technologies. Only huge corporations (in league with national governments) together with highly specialised firms are in a position to mobilise the latest technologies for commercialisation (Beaud, 2000:398-400). The working paper already cited in this thesis looks to define the global production network as a concept which takes into account how "the flows of materials, semi-finished products, design, production, financial and marketing services are organised vertically, horizontally, and diagonally in complex and dynamic configurations" (Henderson *et al*, 2001:16-17). These networks are perceived as, to some extent, hierarchies ultimately controlled, or at least significantly influenced, by 'lead firms', under which are 'secondary' or 'lesser' firms which are 'absorbed' into specific networks as subcontractors and have possible degrees of independence for upgrading which have not as yet been closely investigated by researchers. On June 9, 2003 Toyota announced that it would bring into being a common design and parts information system to function worldwide, at a cost of 200 trillion yen. This information system is to be developed in cooperation with IBM which will make the heart of the system, while the peripheral equipment will come from the likes of Fujitsu and NEC. Leading parts makers worldwide are also likely to buy in (Nikkei, June 10, 2003).

Here is Beaud's coordination of the huge writ large. The leading parts makers used by Toyota throughout the world can be seen as a global production network envisaged by Henderson *et al*. But how much does that explain? The implication in Beaud's account is that the highly specialist companies are large like their customer assemblers. This is not so of Union Tool which commands some 30% of the world market for very specialised drill bits with a workforce worldwide of just over a thousand. The implication of the theorising by Henderson *et al* is that global production networks are single structures despite their vertical, horizontal and diagonal qualities. In fact, the leading parts makers that Toyota uses also service other networks. It is quite possible that Tanaka Kikinzoku and Mabuchi supply their products to all four of the giant companies mentioned above. Actually, Tanaka and Mabuchi possess their own networks while also being participants of a whole matrix of other networks. They are

not 'lesser' or 'absorbed' just because they perform a subcontracting role, not least because in fact they perform a host of subcontracting roles.

In other words, one of the important emphases of this thesis is that globalisation and its manifestations must be studied from viewpoints other than the large or the top. Even if we accept that there are large organisations which manipulate a wider scale of operations through networks, it is still necessary to go within the business networks or matrixes to see what globalisation is doing at different levels. This is where concepts like the LME are useful. Although we recognise that networks are there, and that the LME can be part of them, it can be abstracted from them and made to stand on its own for clearer observation. Then, rather than sitting atop the structure, we are using the LME as a tracking device to probe the inside. And because it is a *leading* medium-sized enterprise with a successful record it can prove highly proficient in revealing insights about the globalisation process in motion.

This in turn suggests further areas for research. As it stands this thesis has been concerned with introducing the internationalising LME in general terms. The aim has been to get the 'concept in action' across. Having been accepted, the LME concept could be used, for example, to investigate their role in the globalisation of specific industries. The electronics industry, given its prominence among the LMEs in this dissertation, presents an obvious starting point, but there are other potential candidates including the service industries. Taking this approach, a group of LMEs could be employed to look at what is happening *in the middle* rather than from the more usual top end of the scale of firms. The spokes of investigation then spread out from a different angle; globalisation is brought alive from another and distinctive perspective.

Taking matters a step beyond that, the degree to which the LME concept is viable in other politico-economic environments could be examined. Germany, for example, is often likened to Japan regarding its economic and industrial structures and, indeed, has been noted for its large number of firms with LME features (Simon, 1996; Dore, 2000). The possibly distinctive characteristics, behaviours and regional impacts of German LMEs is a theme inviting research. Given the importance attached to the immediate East Asian region and its member states in this thesis, moreover, another interesting departure would be to investigate the extent – if at all – that the Japanese LME is

replicated in, for example, South Korea and Taiwan and perhaps latent in an emerging China. Moreover, the specific ways Japanese LMEs have entered, used and impacted on these differentiated locations (compared to Taiwan) is an area also worth examining. Indeed, while some attention in this thesis has been directed at the impact LMEs have on the countries and regions in receipt of LME direct investments, more detailed analysis of this aspect could be forthcoming taken from, for example, the standpoint of the host regions rather than that chiefly of the LME, as has been done here. The relationships LMEs strike up with these states, their governments plus other institutions and actors – both governmental and non-governmental – are also open to exploration, as in the 'dynamics' of impact over time, and the assessment of the longer term contributions to local economic development. There is also the question of the degree of reciprocal influence host governments and LMEs exert on each other. LMEs may be more 'hidden' from the attentions of the host government than large TNCs, for example?

Finally, this thesis has to a considerable degree isolated the LME for close inspection as an individual phenomenon. However, like any operating firm, the LME must function through networks, and by internationalising it inevitably creates and joins international production networks. Moreover, these international networks are not necessarily coterminous with national borders. The points to investigate, therefore, are the range of networks in which the LME is involved; how the LME positions itself in such networks and how it in turn shapes them; in what ways its relationships and circumstances (within and apropos these networks) differs from those of other types of firm, notably the large TNC; and how the networks map onto the more bounded territories of nation states.

## **8.4 Summary**

Having once been thought to be a straight line of inevitability, globalisation is now seen as multifaceted. The Japanese LME can in that light be seen as a singular Japanese response to globalisation, presenting a locally distinctive facet of globalisation. At the same time, the LME is a valid concept for economic analysis beyond Japan's borders. Its particular character – based on core competences, size and ownership – renders it a viable area of study as a part of the examination of economic globalisation, not least for its distinctive aptitude in the art of articulation. This, in turn, is derived from the

development of Japan's economic structure, notably over the past five decades, which was particularly conducive to the fashioning of LMEs. Regionalisation has played a cardinal role in LME internationalisation, and the appeal of Taiwan for the Japanese LME has been considerable, because of its persuasive mix of proximity attributes and the (state influenced) character of its economic development.

In studying the progression of globalisation, the LME can be employed both as an aggregate and on an individual basis. Especially with regard to Japan, at this juncture in history LMEs are numerous enough to deploy as a general group, as well as for certain industries like electronics, to seek an understanding of some of the aspects of the workings of globalisation. Collectively they are important drivers of globalisation, albeit not recognised as such in the literature. Yet once their role has been identified, they become more visible as units than large, multifunctional corporations on the one hand and a myriad of smaller firms on the other, both because they can be clearly defined and because of their manifest successes domestically and, increasingly, internationally. At the same time, because the individual LMEs are so distinct they can be isolated as units for in-depth appraisal. This distinctiveness, as defined by the researcher, can be used to sharpen insights about how firms address globalisation and how the globalising environment impacts on them. The LME is an effective analytical tool for examining the intricacies of the internationalisation of the firm in a globalising setting, and the impact of internationalising firms on the locations they choose to invest in. Further research can be envisaged with respect to the viability of the LME concept for addressing globalisation issues in other countries in the world, the mutual impact of LMEs with host governments and other institutions, and the involvement they have with international production networks of key sectors.

## Appendix

### Letters and Questionnaires

#### 1. Sample of Letter to UK Affiliates of Japanese LMEs Dated October 31, 2001

16 Great College Street  
Brighton  
East Sussex BN2 1HL  
U.K.  
Tel: (01273) 692-357  
E-mail: [fergev@yahoo.com](mailto:fergev@yahoo.com)

ARI Industries (UK) Ltd.  
Unit 2F, Albany Park  
Frimley Road  
Camberly  
Surrey GU15 2PL  
U.K.  
Attention: Mr. Trevor Neve

Dear Sirs,

I am conducting research for a PhD into direct investment by Japanese medium-sized firms in Taiwan, together with the implications this has in the East Asian region and the wider world. My interest in this goes back to the 1970s when I worked for small manufacturers in Japan as export manager. Thereafter I was a translator of written Japanese, having as clients among others the Ministries of International Trade and Industry (MITI, now METI) and Health and Welfare (MHW, now MHL). In doing this research in Taiwan I have enjoyed the kind cooperation of Nihon Koryu Kyokai (which performs diplomatic and JETRO functions in Taiwan) and Nomura Research Institute.

Okazaki Manufacturing Company, as a high-technology instrument maker, set up a manufacturing venture in Taiwan in 1987, having already established a manufacturing affiliate (ARI Industries) in the U.K. in 1983. As I shall be at my home at the above address for a month from November 11, I thought it apposite to take the opportunity to contact you to make the requests as attached in the interests of deepening my research. It is my policy to collect as much written material as possible – including when available official company histories – in Japanese, Chinese and English. In addition, I am particularly interested in Okazaki Manufacturing because (a) it is a firm not listed on the Japanese stock exchange which is apparently successfully expanding abroad, and (b) according to the records I have, it took the relatively unusual step for a Japanese firm of investing in the U.K. before Taiwan.

Any assistance you could afford me would be most gratefully received.

Yours faithfully,

Ferguson Evans  
Middlesex University Business School

## **2. Accompanying Questions to Letter Dated October 31, 2001**

### **RESEARCH REQUESTS**

by

Ferguson Evans            PhD Candidate, Middlesex University Business School  
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Brighton  
East Sussex BN2 1HL  
U.K.

Tel: (01273) 692-357

E-mail: [fergev@yahoo.com](mailto:fergev@yahoo.com)

PLEASE USE THIS FORM TO RESPOND IF CONVENIENT

1. Could you forward company publications (advertising, statements, etc.) concerning business operations in the U.K./Europe/other.

2. Could you recommend any other contacts in Europe for obtaining more information (in French and German, for example).

Name:

Address:

Tel:

Fax:

E-mail

3. Could you recommend personnel to contact at the head office in Japan. (All communications, written and spoken, can be conducted in Japanese).

Name:

Address:

Tel:

Fax:

E-mail:

4. Any further advice.



### 3. Letter Faxed to Taiwan Affiliates of Japanese LMEs Dated May 1, 2002

A JAPANESE VERSION FOLLOWS

1<sup>st</sup> May, 2002

Attention:

Dear Sirs,

I am conducting research for a PhD into the internationalization of Japanese leading medium-sized enterprises (LMEs). My main focus is on firms which made their original direct investments in Taiwan between 1965 and 1990, and how this affects and relates to their other foreign direct investments within the East Asian region and globally. Their designation as 'medium-sized' is due to their scale of operations within Japan, although their operations worldwide can have increased their organization size substantially.

My qualifications for doing this research are a London University degree in Economics and 21 years experience working in Japan from 1969 to 1990. During that time I was employed by small manufacturers in Japan as export manager, functioning chiefly in East Asia. Subsequently I was a translator of written Japanese, having as clients among others the Ministries of International Trade and Industry (MITI, now Ministry of Economy, Trade and Industry) and Health and Welfare (MHW, now Ministry of Health, Labour and Welfare).

In doing this research in Taiwan I have enjoyed the kind cooperation of Nihon Koryu Kyokai (which performs diplomatic and JETRO functions in Taiwan) and Nomura Research Institute. The Roppongi, Tokyo office of Nihon Koryu Kyokai has also been very helpful, as well as the Ministry of Economy, Trade and Industry, JETRO and the Japan Small Business Corporation among others. Basic reference materials for the research have included:

- \* Zaika Nihon Kigyo Soran – Baker & McKenzie, Taipei
- \* Japan Company Handbook – Oriental Economist, Tokyo
- \* Mijojo Kaisha Ban – Oriental Economist, Tokyo
- \* Kaisha Joho – Japan Economic Journal, Tokyo
- \* Kaigai Shinshutsu Kigyo Soran – Oriental Economist, Tokyo
- \* Your individual enterprise websites (in English, Japanese, some Chinese)

[In addition, your company also has an affiliate in the United Kingdom which has kindly provided me with company catalogues and other materials about your international activities.] Based on this accumulated data I wonder if it would be possible for me to visit your base in Taiwan to conduct an interview, in Japanese or English, lasting a maximum of one hour. The points I would like to discuss are outlined in the Attachment.

Realizing that you no doubt have a very busy schedule, I would naturally be happy to visit at a time which is most convenient for you. Your assistance in this matter would be most appreciated.

Yours faithfully,

Ferguson Evans  
Middlesex University Business School

#### **4. Questionnaire Accompanying Letter of May 1, 2002**

#### **ATTACHMENT**

#### **POINTS FOR DISCUSSION**

##### ***1. The Company in Japan***

- a. When was your company established?
- b. What is its main area of specialization and what is its underlying business strategy?
- c. In its specialized area how does the company rank in Japan? How does it rank in the world?
- d. Did the company experience particularly rapid growth at any period in Japan, for example, during the high growth period of the 1960s?
- e. How has the company changed since its establishment in terms of types of product and services and in terms of customer base?

##### ***2. Company Internationalization***

- a. What was the company's first experience in internationalization? Did it take the form of exporting or investment, for example?
- b. When did this first internationalization move occur? Was it connected with any significant development in Japanese government policy like, for example, the capital liberalization measures initiated between 1969 and 1972 or MITI's promotion of foreign direct investment (FDI) in the 1970s?
- c. Where was the location (country) of your company's first FDI? Why was that particular location (country) selected?
- d. What form did the FDI take? Was it a wholly owned investment or did it involve a joint venture with local host-country or Japanese partners, for example? Was it a sales office only or did it involve manufacturing abroad?
- e. Why did your company start to move operations overseas? Some of the possibilities here include: in response to the needs of a major Japanese customer which has relocated some operations abroad; the introduction by a Japanese trading company to business opportunities overseas; high costs and labour shortages in Japan; mounting East Asian competition; the threat of protectionist measures by Western countries.

### ***3. The Company's Establishment in Taiwan***

- a. Was Taiwan your company's first ever overseas manufacturing base? If not, which country was?
- b. Was Taiwan particularly attractive for reasons of historical familiarity, or cultural and geographical proximity, for example? Was it viewed as a natural extension of the company's business development in Japan?
- c. What, in the first instance, were the chief motivating causes for manufacturing in Taiwan? Some possibilities here could be: production expansion; production variation; reduced costs including labor costs; growing Taiwanese market demand; a production base for East Asia or countries worldwide.
- d. Was your company initially attracted by Taiwanese government policy for encouraging inward FDI, like the Export Processing Zones, for example?
- e. What did you first start to manufacture in Taiwan? Was it relatively low tech and labour-intensive?

### ***4. The Company's Progress in Taiwan***

- a. Following on from your initial investment in Taiwan, have you increased your investments here? If you started with a joint venture arrangement, have you strengthened your share of the Taiwanese business? Alternatively have you divested?
- b. Since starting manufacture in Taiwan, has your company increased local content and reduced imports of components and other intermediate items from Japan? What has influenced the switch to local content, for example, improved quality, prompt delivery, cheaper price than imports?
- c. How has your company been influenced by technological progress in Taiwan, as promoted, for example, by the government's policy to shift the production emphasis from labor-intensive to capital-intensive in the 1970s and then to microelectronics in the 1980s?
- d. Has technological progress together with the concomitant elevation of the technological capabilities of your Taiwanese staff been a positive force encouraging you to retain some of your activities in Taiwan? And have local Taiwanese employees taken on increasingly important positions in the company over time?
- e. Since the start of your company's operations in Taiwan, how has the market for the local affiliate's products and services changed? Did it progressively export more to East Asia and the rest of the world, including Japan, for example?

### ***5. The Company's Present Situation in Taiwan***

- a. What are the products and services now offered by the affiliate in Taiwan? To what degree has their content evolved since the initial investment?
- b. Is the Taiwanese affiliate now in competition with companies offering similar products and services in the East Asian region? Has this competition grown significantly over time?
- c. Does the Taiwan affiliate link up its operations with other affiliates of your company in the East Asian region in a division of labor for production?
- d. How does the technological level of the Taiwan affiliate compare with that of the parent company in Japan and other affiliates. Does the Taiwan affiliate engage in research and development and design, for example?
- e. What are the current merits of the Taiwan affiliate? These could include: technological capability, effectiveness of the workforce, local materials supply, the Taiwanese domestic market, a base for exports to Southeast Asia and China, a base for exports worldwide.

### ***6. Regional and Global Positioning of Taiwan Operations***

- a. Does the Taiwan company function as a specialist producing a specific range of your company's products for sale in the East Asian region and/or worldwide?
- b. Does the Taiwan affiliate function as a hub for the company's operations within the East Asian region and/or over a wider area?
- c. Could you describe the Taiwan as being on a technological continuum with the order of capability being, for example: Japan => Taiwan => Southeast Asia/China?
- d. Does the Taiwan affiliate occupy a particular position of importance for your company in dealing with the Chinese business community in East Asia (China, Singapore and the overseas Chinese in Malaysia, Thailand, Indonesia, etc.)? Have your Taiwanese staff proved helpful in developing business in this Chinese business community outside Taiwan itself?
- e. In strategic terms how do you now perceive East Asia? Do you see it as a number of separate production units and markets or do you see it as a single production and marketing unit?

## 5. Japanese Translation of Letter of May 1, 2002

拝啓

現在わたくしは日本の中堅企業（Leading Medium-sized Enterprises）の国際化に関する博士課程研究を行っております。今回はその総括的内容を皆様にご紹介させていただきたいと思います。

まず、1965年から1990年の間に、台湾において独自の直接投資を行ってきた企業に焦点を当て、さらにこれらの企業における台湾投資が、その後どのようにして東アジアの地域およびその他各地域における海外直接投資分野に影響を及ぼしてきたか、というのが主な内容です。

これらの企業の日本における経営は、いわゆる「中堅企業型」に分類されますが、その経営および投資対象が世界に向けられた時点で、すでにその企業サイズは飛躍的に増大しているといえるでしょう。

この研究を行うにあたって、ロンドン大学の経済学学位があったことはもちろん、また1969年から1990年の21年におよぶ日本での勤務経験が非常に役立ちました。当時私は日本の中小メーカーにおいて、主に東アジアを対象とする輸出部門の部長を担当しておりましたが、同時に書面における日本語の翻訳も担当としており、主なクライアントとして通商産業省（現在の経済産業省）および厚生省（現在の厚労省）などの文書を翻訳させていただきました。

さらに台湾においてこの研究を進めるにあたり、台湾において外交およびジェトロ（JETRO）としての機能を担っておられます日本経済文化交流協会様方、および野村総合研究所様方から大きなご協力をいただきました。また通産省、日本中小企業協会、日本交流協会東京のオフィスである六本木、およびJETROの皆様にもお力添えをいただきました。

研究における主な参考資料は以下の通りです：

- 在華日本企業総覧－ペイカー&マッケンジー/台北
- Japan Company Handbook－東洋経済/東京
- 未上場会社版－東洋経済/東京
- 会社情報－日本経済新聞/東京
- 海外進出企業総覧－東洋経済/東京
- 皆様の個別企業ウェブサイト（英語、日本語、中国語）

さらに、貴社の英国における子会社の方からも、グローバルな企業活動に関して会社カタログその他資料をお送り頂きました。ここに厚くお礼申し上げます。

以上に述べました紹介をもちまして、私側からのインタビュー申込みとさせて頂ければ幸いです。貴社の台湾事業部を直接ご訪問いたしまして、最長で一時間、日本語または英語で、質問など伺わせて頂きたく存じます。インタビュー詳細は付属文書をご覧ください。

ご多忙の所とは存じておりますが、もちろんスケジュールは貴社のご希望の時間帯で結構ですので、何卒よろしくお願い申し上げます。

敬具

## 6. Japanese Version of Questionnaire Accompanying Letter of May 1, 2002

インタビューおよびディスカッションにおける主な内容

1. 日本の企業
  - a. 貴社の設立年。
  - b. 貴社の専門分野、およびその分野における基本的な経営戦略。
  - c. 貴社の専門分野における、日本および世界でのランク付け。
  - d. 貴社は、ある一定の期間内、急速な成長を遂げた時期がありましたか？（例：1960年代の日本高度成長期など）
  - e. 設立以来、貴社において、製品、サービス、および顧客ベースでどのような変遷がありましたか？
2. 企業の国際化
  - a. 貴社における、最も初期の国際化にまつわる経験は何でしたか？例えばそれは、輸出または投資などの形式として現れましたか？
  - b. 貴社において、最初の国際化の動きはいつ起こりましたか？例えばそれは、1969年および1972年の資本自由化の動きや、1970年代通産省が行った海外直接投資(FDI)の促進などと何か関連がありましたか？
  - c. 貴社の最初のFDI相手国はどちらでしたか？その国が選択された理由は？
  - d. 貴社におけるFDIはどのような形式を採用されましたか？例えばそれは、完全所有投資、または現地パートナーあるいは日本のパートナーとの合併事業などでしたか？また形態として、営業所のみの進出でしたか？それとも、海外製造部門を含めての進出でしたか？
  - e. 貴社が経営を海外へ移動された理由は？可能性として以下のいくつかが挙げられないでしょうか？；すでに海外へ拠点を移している顧客のニーズに合わせるため；海外ビジネスを薦める日本貿易企業の紹介によって；日本におけるコストの上昇および労働人材の欠如；東アジアにおける競争の激化；西側諸国の保護貿易的行為のおそれ、など。
3. 台湾における企業設立
  - a. 貴社が最初に移動を行われた海外拠点は、台湾でしたか？それとも別の国でしたか？
  - b. 台湾が選ばれた理由としては、歴史上関係が深い、文化および地理的に近い、などが挙げられますか？貴社の台湾事業開発は、日本では自然なこととして無理なく受け入れられていますか？
  - c. 台湾における製造を開始する際の、主な動機は何ですか？例えば、生産拡張、生産形態のバリエーション、人件費などを含むコストの低減、台湾現地の市場需要の増加、東アジアおよび世界の国々の生産拠点、など。
  - d. 貴社の海外進出を考慮する際、台湾政府のFDI誘致政策（例：輸出加工区など）は魅力的要因となり得ましたか？
  - e. 貴社が台湾で最初に生産されたものは何ですか？それは比較的難易度の低い技術、もしくは労働集約型といえるものでしたか？
4. 企業の台湾進出状況

- a. 台湾における投資額は初期のものから比べて増加しましたか？合併事業であった場合、台湾ビジネスのシェアは広がりましたか？それとも撤退しましたか？
  - b. 貴社の台湾における製造開始以来、現地調達材料、輸入組み立て品、および中間アイテムの割合に変化はありましたか？現地調達品に関してそれらが増加した場合、原因として、品質改良、より迅速なデリバリー時間、また輸入品より比較的低価格である、などが挙げられないでしょうか？
  - c. 台湾における技術開発は、貴社に対しどのような影響を及ぼしましたか？例えば1970年代台湾政府による生産の労働集約型から資本集約型への移行推進や、1980年代のマイクロエレクトロニクスへの移行など？
  - d. 台湾における技術的進歩、およびそれに付随する現地台湾職員技術的スキル向上は、貴社が台湾で企業活動を進める際のプラスの力となり得ましたか？ある一定の期間を経た後、台湾現地職員は、貴社の内部において、重要な役職を得ることができたでしょうか？
  - e. 貴社の台湾事業開始以来、現地の系列会社の製品およびサービスの市場はどのように変化しましたか？またそれは東アジア、日本など世界各地への輸出事情などに貢献しましたか？
5. 台湾における企業の現在
- a. 貴社において現在、台湾事業部はどのような製品およびサービスを提供していますか？それらは初期の投資から比べてどの程度の発展を遂げましたか？
  - b. 貴社の台湾事業部における、東アジアの同様の製品およびサービスを提供する企業との競合について、現在そのような状況は見られますか？その競合状況にはどのような変化が見られますか？
  - c. 貴社の台湾事業部は、東アジア地域における各事業部との生産分業をされておられますか？
  - d. 貴社の台湾事業部の技術的なレベルは、日本の本社および貴社における他の海外事業部と比較してどのように位置づけられますか？例えば、台湾事業部は研究開発およびデザイン設計に関与するだけのレベルを持っているといえますか？
  - e. 貴社の台湾事業部における現時点での長所は何ですか？例えば；技術的スキル、労働力の有効性、現地材料の供給、台湾の国内市場開拓、東南アジア・中国および世界へに向けた輸出用拠点、など。
6. 台湾における経営の現地およびグローバル的役割
- a. 貴社における東アジアおよび世界に向けた製品販売に関して、台湾事業部はどの程度の役割を担っていますか？
  - b. 貴社の台湾事業部が、東アジアおよびその他世界の地域経営へ向けた中継的機能の役割を果たすことはありますか？
  - c. 技術的つながり及び順序として、例えば次の様に形容することは可能でしょうか；日本⇒台湾⇒東南アジア/中国
  - d. 貴社が東アジアの中国語圏ビジネスエリア（中国、シンガポール、またマレーシア・タイ・インドネシアなどにおける華僑社会）を取り扱う際、台湾の事業部門は主にもどの様な役割を果たすことができますか？現地台湾人職員について、台湾以外での中国語圏ビジネスエリアを開拓する際に有用であると感じられたことはありますか？
  - e. 経営戦略の分野において、今、どのように東アジアを捉えておられますか？個別のユニットおよび市場的存在といえるのでしょうか、それとも一つの生産・経済の全体的ユニットとして捉えて良いのでしょうか？

## References

- Aaby, N.E. and Slater, S.F. (1989), 'Management influence in export performance: A review of the empirical literature 1978-1988', *International Marketing Review*, Vol. 6, No. 4, pp. 7-22.
- Abegglen, J. and Stalk, G. Jr. (1985), *Kaisha: The Japanese Corporation*. New York, NY: Basic Books, Inc.
- Aberbach, J., Dollar, D. and Sokoloff, K. (1994), 'Afterword', in J. Aberbach, D. Dollar and K. Sokoloff (eds), *The Role of the State in Taiwan's Development*. Armonk, NY: M.E. Sharpe, Inc.
- Aharoni, Y. (1966), *The Foreign Investment Decision Process*. Boston, MA: Harvard University Press.
- Akabane, S. (1998), 'Business Policy and Management Systems of Companies Investing in Asia', in S. Suzuki (ed), *Nihon Kigyo no Ajia Shinshutsu* (Japanese Companies Advancing into Asia). Tokyo: Zeimu Keiri Kyokai.
- Akamatsu, K. (1961), 'A theory of unbalanced growth in the world economy', *Weltwirtschaftliches Archiv*, Vol. 86, No. 2, pp. 196-215.
- Akamatsu, K. (1962), 'A Historical Pattern of Economic Growth in Developing Countries', *The Developing Economies*, Vol. 1, No. 1, 3-25.
- Ali, A. and Swiercz, P. (1991), 'Firm Size and Export Behavior: Lessons from the Midwest', *Journal of Small Business Management*, Vol. 29, No. 2, pp. 71-8.
- Amsden, A. (1989), *Asia's Next Giant: South Korea and Late Industrialization*. New York, NY: Oxford University Press, Inc.
- Amsden, A. (1991), 'Big Business and Urban Congestion in Taiwan: The Origins of Small Enterprise and Regionally Decentralized Industry (Respectively)', *World Development*, Vol. 19, No. 9, pp. 1121-1136.
- Anderson, E. and Gatignon, H. (1986), 'Modes of Foreign Entry: A Transaction Cost Analysis and Propositions', *Journal of International Business Studies*, Fall, pp. 1-26.
- Anderson, P.H. (1995), *Collaborative Internationalization of Small and Medium-sized Enterprises*. Copenhagen: DJOF Publishing.



- Aoki, T. (1992), 'Japanese FDI and the Forming of Networks in the Asia-Pacific Region: Experience in Malaysia and the Implications', in S. Tokunaga (ed), *Japan's Foreign Investment and Asian Economic Interdependence*. Tokyo: Tokyo University Press.
- Arase, D. (1995), *Buying Power: The Political Economy of Japan's Foreign Aid*. Boulder, CO: Lynne Rienner Publishers, Inc.
- Ariff, M. and Ng, S.T. (1998), 'Taiwanese investment in Malaysia', in T-J. Chen (ed) *Taiwanese Firms in Southeast Asia: Networking Across Borders*. Cheltenham, UK and Northampton, MA: Edward Elgar.
- Asamoto, T. (1999), 'Keizai Hatten to Kozo Tenkan' (Economic Development and Structural Transformation), in A. Se and T. Asamoto (eds), *Taiwan Keizai Ron: Keizai Hatten to Kozo Tenkan* (The Taiwanese Economy: Economic Development and Structural Transformation). Tokyo: Keizo Shobo K.K.
- Asamoto, T. and Liu, W. (eds) (2001), *Taiwan no Keizai Kaihatsu Seisaku* (The Role of Government and Economic Development Policy in Taiwan). Tokyo: Keiso Shobo.
- Asano, N. (1995), *Shiea Nihon Ichi Kigyo no Himitsu* (Secrets of Companies with Top Market Share in Japan). Tokyo: Kou Business.
- Ashworth, W. (1962), *The International Economy since 1850*, Second Edition. London: Longmans, Green and Co., Ltd.
- Atkinson, J. (1984), *Flexibility, Uncertainty and Manpower Management*. Brighton: Institute of Manpower Studies.
- Backman, M. (ed) (1995), *Overseas Chinese Business Networks in Asia*. Canberra, Australia: East Asia Analytical Unit, Department of Foreign Affairs and Trade.
- Bamberger, I. (1994), 'Developing Competitive Advantages in Small and Medium-Sized Enterprises', in I. Bamberger (ed), *Product/Market Strategies of Small and Medium-Sized Enterprises*. Aldershot, UK: Avebury.
- Baran, R., Pan, Y. and Kaynak, E. (1996), 'Research on International Joint Ventures in East Asia: A Critical Review and Future Directions', in R. Baran, Y. Pan and E. Kaynak (eds), *International Joint Ventures in East Asia*. Binghamton, NY: International Business Press.
- Barnard, C. (1938), *The Functions of the Executive*. Cambridge, MA: Harvard University Press.

Beaud, M. (2000), *Histoire du capitalisme de 1500 à 2000*, Cinquième édition mise à jour (History of capitalism, Fifth Edition). Paris: Seuil.

Beck, U., Giddens, A. and Lash, S. (1988), *Reflexive Modernization*. Cambridge: Polity Press.

Becker, T.H. and Porter, J.L. (1983), 'Small Business Plus Export Trading Companies: New Formula for Export Success?', *Journal of Small Business Management*, October, pp. 8-16.

Benito, G. and Gripsrud, G. (1991), 'The Expansion of Foreign Direct Investments: Discrete Rational Location Choices or a Cultural Learning Process?', *Journal of International Business Studies*. Vol. 23, pp. 461-476.

Bergqvist, T. (2002), 'The concept of flexibility and its occasional misuse.' Paper presented at the International Council for Small Business 47<sup>th</sup> World Conference, San Juan, Puerto Rico, June 16-19.

Bernard, M and Ravenhill, J. (1995), 'Beyond Product Cycles and Flying Geese', *World Politics*, Vol. 47, pp. 171-209.

Bilkey, W.J. (1978), 'An Attempted Integration of the Literature on the Export Behavior of Firms', *Journal of International Business Studies*, Vol. 9, pp. 33-46.

Bilkey, W.J. and Tesar, G. (1977), 'The Export Behavior of Smaller Sized Wisconsin Manufacturing Firms', *Journal of International Business Studies*, Vol. 8, pp. 93-8.

Blau, J. (1993), *Social Contracts and Economic Markets*. New York, NY: Plenum Press.

Blaug, M. (1992), *The Methodology of Economics: Or how economists explain*, Second Edition. Cambridge: Cambridge University Press.

Bonaccorsi, A. (1992), 'On the Relationship between Firm Size and Export Intensity', *Journal of International Business Studies*, Vol. 23, Fall, pp. 605-35.

Borras, M. (1994), 'Left for Dead: Asian Production Networks and the Revival of U.S. Electronics', in E. Doherty (ed), *Japanese Investment in Asia: International Production Strategies in a Rapidly Changing World*. San Francisco, CA: The Asia Foundation, BRIE.

- Boter, H. and Holmquist, C. (1998), 'Industry Characteristics and Internationalization Processes of Small Firms', in A. Haahti, G. Hall and R. Donckels (eds), *The Internationalization of SMEs in Europe: The Interstratos Project*. London: Routledge.
- Brooks, H. and Guile, B. (1987), 'Overview', in B. Guile and H. Brooks (eds), *Technology and Global Industry: Companies and Nations in the World Economy*. Washington, DC: National Academy Press, pp. 1-15.
- Brooksbank, R., Kirby, D.A. and Wright, G. (1992), 'Marketing and company performance: an examination of medium-sized manufacturing firms in Britain', *Small Business Economics*, Vol. 4, pp. 221-236.
- Bryan, L. and Fraser, J. (1999), 'Getting to global', *McKinsey Quarterly*, Number 4, pp. 28-37.
- Bryan, L., Lyons, T. and Rosenthal, J. (1998), 'Corporate strategy in a globalising world: The market capitalisation imperative', *McKinsey Quarterly*, Number 3, pp. 6-19.
- Bryman, A. (1988), *Quantity and Quality in Social Research*. London: Unwin Hyman.
- Buckley, P.J. (1979), 'Foreign Investment Success for Smaller Firms', *Multinational Business*, Vol. 3, pp. 12-19.
- Buckley, P.J. (1990), 'Problems and Developments in the Core Theory of International Business', *Journal of International Business Studies*. Vol. 21, pp. 657-665.
- Buckley, P.J. (1993), 'Foreign Direct Investment by Small- and Medium-sized Enterprises: The Theoretical Background', in P. Buckley and P. Ghauri (eds), *The Internationalization of the Firm*. London: Academic Press Limited.
- Buckley, P.J. and Casson, M. (1976), *The Future of the Multinational Enterprise*. London: Macmillan Press.
- Buckley, P.J. and Mathew, A.M. (1980), 'Dimensions of the Market Entry Behaviour of Recent UK First Time Direct Investors in Australia', *Management International Review*, Vol. 20, No. 2, pp. 35-51.
- Buckley, P.J., Newbould, G. and Thurwell, J. (1988), *Foreign Direct Investment by Smaller UK Firms*. London: Macmillan Press.

- Calder, K. (1988), *Crisis and Compensation: Public Policy and Political Stability in Japan*. Princeton, NJ: Princeton University Press.
- Calof, J.L. (1993), 'The Impact of Size on Internationalization', *Journal of Small Business Management*, Vol. 31, No. 4, pp. 60-69.
- Calvet, A.L. (1981), 'A Synthesis of Foreign Direct Investment and Theories of the Multinational Firm', *Journal of International Business Studies*, Vol. 12, pp. 43-60.
- Carson, D.J. (1985), 'The Evolution of Marketing in Small Firms', *European Journal of Marketing*, Vol. 19, No. 5, pp. 7-16.
- Casson, M. (1995), *Enterprise and Competitiveness: A Systems View of International Business*. Oxford: Oxford University Press.
- Caves, R. (1971), 'International Corporations: The Industrial Economics of Foreign Investment', *Economica*, Vol. 38, pp. 1-27.
- Caves, R. (1974), 'Causes of Direct Investment: Foreign Firms' Shares in Canadian and United Kingdom Manufacturing Industries', *Review of Economics and Statistics*, Vol. 56, pp. 279-293.
- Cavusgil, S.T. (1976), 'Organisational Determinants of Firms' Export Behaviour: An Empirical Analysis', Ph.D. dissertation; cited by Miesenbock (1988).
- Cavusgil, S.T. (1980), 'On the internationalisation process of firms', *European Research*, Vol. 8, November, pp. 273-281.
- Cavusgil, S.T., Bilkey, W.J. and Tesar, G. (1979), 'A Note on the Export Behavior of Firms: Export Profiles', *Journal of International Business Studies*, Vol. 10, No. 1, pp. 91-97.
- Cavusgil, S.T. and Godiwalla, Y.M. (1982), 'Decision-Making for International Marketing: A Comparative Review', *Management Decision*, Vol. 20, No. 4, pp. 47-54.
- Cavusgil, S.T. and Nevin, J.R. (1981), 'International Determinants of Export Marketing Behavior: An Empirical Investigation', *Journal of Marketing Research*, Vol. 28, February, pp. 114-119.
- Chandler, A. (1990), *Scale and Scope: The Dynamics of Industrial Capitalism*. Cambridge, MA: Belknap Press.

Chen, E.Y.K. (1990), 'The Electronics Industry', in H. Soesastro and M. Pangestu (eds), *Technological Change in the Asia Pacific Economy*. Sydney: Allen and Unwin.

Chen, H. and Chen, T-J. (1998), 'Network Linkages and Location Choice in Foreign Direct Investment', *Journal of International Business Studies*, Vol. 29, No. 3, pp. 445-68.

Chen, H. and Liu, M-C. (1998), 'Noneconomic Elements of Taiwan's Foreign Direct Investment', in T-J. Chen (ed) *Taiwanese Firms in Southeast Asia: Networking Across Borders*. Cheltenham, UK and Northampton, MA: Edward Elgar.

Chen, T-J. (1992), 'Determinants of Taiwan's Direct Foreign Investment: The Case of a Newly Industrializing Country', *Journal of Development Economics*, Vol. 39, pp. 397-407.

Chen, T-J. (1998), 'Introduction', in T-J. Chen (ed), *Taiwanese Firms in Southeast Asia: Networking Across Borders*. Cheltenham, UK and Northampton, MA: Edward Elgar.

Chen, T-J., Ku, Y-H. and Liu, M-C. (1995), 'Direct Foreign Investment in High-wage vs. Low-wage Countries: the Case of Taiwan', in P. Drysdale and E. Chen (eds), *Corporate Links and Foreign Direct Investment in Asia and the Pacific*. Pymble, NSW, Australia: Harper Educational.

Chi, H-K. (1994), 'Asia's New Wave of Foreign Direct Investment', *NRI Quarterly*, Winter, pp. 24-37.

Chu, Y-H. (1994), 'The State and the Development of the Automobile Industry in South Korea and Taiwan', in J. Aberbach, D. Dollar and K. Sokoloff (eds), *The Role of the State in Taiwan's Development*. Armonk, NY: M.E. Sharpe, Inc.

Clegg, J. (1996), 'The United Kingdom: A *par excellence* two-way direct investor', in J.H. Dunning and R. Narula (eds), *Foreign Direct Investment and Governments: Catalysts for Economic Restructuring*. London: Routledge.

Coase, R.H. (1937), 'The Nature of the Firm', 4 *Economica NS*, pp. 386-406.

Coviello, N. and Munro, H.J. (1995), 'Growing the Entrepreneurial Firm: Networking for International Market Development', *European Journal of Marketing*, Vol. 29, No. 7, pp. 49-62.

Cyert, R. and March, J. (1963), *A Behavioral Theory of the Firm*. Englewood Cliffs, NJ: Prentice-Hall.

Czinkota, M.R. and Johnston, W.J. (1983), 'Exporting: Does sales volume make a difference?', *Journal of International Business Studies*, Vol. 14, pp. 147-153.

Dandridge, T.C. (1979), 'Children are not 'Little Grown-Ups' - Small Business Needs its own Organizational Theory', *Journal of Small Business Management*, April, pp. 53-57.

Davidson, W.H. (1983), 'Market similarity and market selection: Implications for international marketing strategy', *Journal of Business Research*, Vol. 11, pp. 439-456.

Denis, J.E. (1990), 'Une Synthèse de la Recherche sur le Comportement des Firmes à l'Exportation' (A Synthesis of the Research on the Behaviour of Exporting Firms), Université d'Ottawa, Working Paper 90-15.

Denzin, N. (1978), *The Research Act: a Theoretical Introduction to Sociological Methods*, 2<sup>nd</sup> edn. New York, NY: McGraw-Hill.

de Vaus, D. (1996), *Surveys in Social Research*. London: UCL Press.

Dianzi Shibao (Digitimes) (1999), 'Youneng PCB Zuantou Quankui Di-Yi' (Union Tool World Number One in PCB Drills), August 31.

Dichtl, E., Koeglmayr, H.-G. and Mueller, S. (1989), 'International Orientation as a Precondition for Export Success', *Journal of International Business Studies*, Vol. 21, pp. 23-40.

Dicken, P. (1992), *Global Shift: The Internationalisation of Economic Activity*, Second Edition. London: Paul Chapman Publishing Ltd.

Dicken, P. (1998), *Global Shift: Transforming the World Economy*, Third Edition. London: Paul Chapman Publishing Ltd.

Dicken, P. and Yeung, H. W-C. (1999), 'Investing in the Future: East and Southeast Asian firms in the global economy', in K. Olds. P. Dicken, P. Kelly, L. Kong and H. W-C. Yeung, *Globalisation and the Asia-Pacific: Contested Territories*. London: Routledge, pp. 107-128.

Doane, D.L. (1998), *Cooperation, Technology, & Japanese Development: Indigenous Knowledge, the Power of Networks, and the State*. Boulder, CO and Oxford, UK: Westview Press.

Dobson, W. (1993), *Japan and East Asia: Trading and Investment Strategies*. Singapore: Institute of Southeast Asian Studies.

- Doner, R.F. (1994), 'Japanese Automotive Production Networks in Asia', in E.M. Doherty (ed), *Japanese Investment in Asia: International Production Strategies in a Rapidly Changing World*. Conference of the Berkeley Roundtable on the International Economy, September 26-27, pp. 101-13.
- Donnet, P-A. (1991), *Le Japon Achète le Monde* (Japan is Buying the World). Paris: Seuil.
- Dore, R. (1973), *British Factory - Japanese Factory*. London: George Allen & Unwin Ltd.
- Dore, R. (2000), *Stock Market Capitalism: Welfare Capitalism – Japan and Germany versus the Anglo-Saxons*. Oxford: Oxford University Press.
- Douglas, S., Craig, C. and Keegan, W. (1982), 'Approaches to Assessing International Marketing Opportunities for Small- and Medium-Sized Companies', *Columbia Journal of World Business*, Vol. 17, No. 3, pp. 26-32.
- Drucker, P. (1991), *Fortune*, December 30.
- Duchénaut, B. (1995), *Enquête sur les PME Françaises* (An Inquiry into French SMEs). Paris: Maxima.
- Dunning, J.H. (1979), 'Explaining changing patterns of international investment: in defence of the eclectic theory', *Oxford Bulletin of Economics and Statistics*, Vol. 41, pp. 269-96.
- Dunning, J.H. (1981), *International Production and the Multinational Enterprise*. London: George Allen and Unwin.
- Dunning, J.H. (1988), *Explaining International Production*. London: Unwin Hyman Ltd.
- Dunning, J.H. (1995), 'Reappraising the Eclectic Paradigm in an Age of Alliance Capitalism', *Journal of International Business Studies*, Vol. 26, No. 3, pp. 461-491.
- Dunning, J.H. and Narula, R. (1996), 'The Investment Development Path Revisited: Some Emerging Issues', in J.H. Dunning and R. Narula (eds), *Foreign Direct Investment and Government: Catalysts for Economic Restructuring*. London: Routledge.
- Economic Planning Agency (1997), *Ajia Keizai* (The Asian Economy). Tokyo: Ministry of Finance.

- Edmunds, S.E. and Khoury, S. (1986), 'Exports: A Necessary Ingredient in the Growth of Small Business Firms', *Journal of Small Business Management*, October, pp. 54-65.
- Eisenhardt, K. (1989), 'Building Theories from Case Study Research', *Academy of Management Review*, Vol. 14, No. 4, pp. 532-550.
- Encarnation, D. (1995), 'Bringing East Asia into the US-Japan Rivalry: The Regional Evolution of American and Japanese Multinationals', in E. M. Docherty (ed), *Japanese Investment in Asia: International Production Strategies in a Rapidly Changing World*. San Francisco, CA: BRIE.
- Ernst, D. (1994), 'Mobilising the Region's Capabilities? The East Asian Production Networks of Japanese Electronics Firms', in E.M. Doherty (ed), *Japanese Investment in East Asia: International Production Strategies in a Rapidly Changing World*. Conference of the Berkeley Roundtable on the International Economy, September 26-27, pp. 29-55.
- Evans, D.F. (Ferguson) (1995), 'Japanese Small and Medium-sized Enterprises in Japan and East Asia'. Unpublished paper presented at the Japan Information Seminar at Newcastle University, September 22-24.
- Evans, D.F. (Ferguson) (1997), 'Seki no Gundan in China: Strategies for Survival and Growth in the Japanese Garment Industry' in T. Moore and G. Graen (eds), *Making Global Partnership Work*. Cincinnati, OH: University of Cincinnati.
- Evans, D.F. (Ferguson) (1999), 'Japanese SMEs and Independence: A Different View', *Journal of Small Business Management*, Vol. 37, No. 4, October.
- Fallows, J. (1994), *Looking at the Sun: The Rise of the New East Asian Economic and Political System*. New York, NK: Pantheon Books.
- Ferdows, K. (1980), 'Start-up of Small Manufacturing Ventures in Developing Countries', *American Journal of Small Business*, October-December, pp. 12-22.
- Fields, K.J. (1995), *Enterprise and the State in Korea and Taiwan*. Ithaca, NY: Cornell University Press.
- Fingleton, E. (1995), *Blindside: Why Japan Is Still on Track to Overtake the U.S. by the Year 2000*. Boston, MA: Houghton Mifflin.
- Fong, C-O. (1992), 'Foreign Direct Investment in Malaysia', in S. Tokunaga (ed), *Japan's Foreign Investment and Asian Economic Interdependence*. Tokyo: Tokyo University Press.



Forbes (1999), '300 Best Small Companies', *Forbes Global*, November 1, pp. 55-86.

Forbes (Japanese Version) (2000), 'Nihon no Okuman Choja' (Japan's Billionaires), September.

Francks, P. (1999), *Japanese Economic Development: theory and practice*. London: Routledge.

Fransman, M. (1999), *Visions of Innovation: The Firm and Japan*. Oxford: Oxford University Press.

Friedman, D. (1988), *The Misunderstood Miracle: Industrial Development and Political Change in Japan*. Ithaca, NY: Cornell University Press.

Fuji Sogo Kenkyujo (Fuji General Research Centre) (1998), '*Monozukuri*' *Kakumei* ('Making Things' Revolution). Tokyo: Toyo Keizai Shinposha.

Gabel, E. and Moraw, D.-J. (1994), 'Entrepreneurial Strategies and Systems of Values as Factors Influencing Competitive Advantages', in I. Bamberger (ed), *Production/Market Strategies of Small and Medium-Sized Enterprises*. Aldershot, UK: Avebury.

Gamblin, A. (1992), *Taiwan, République de Chine: La victoire du dragon* (Taiwan, Republic of China: The victory of the dragon). Paris: Sedes.

Gates, H. (1996), *China's Motor: A Thousand Years of Petty Capitalism*. Ithaca, NY: Cornell University Press.

Gélinier, O. (1996), *La Réussite des Entreprises Familiales: Les moyennes entreprises, un atout pour l'avenir* (The Success of Family Firms: Medium-sized enterprises as a trump card for the future). Paris: Maxima.

Gemunden, H.-G. (1991), 'Success factors of export marketing: A meta-analytic critique of the empirical studies', in S.J. Paliwoda (ed), *New Perspectives in International Marketing*. London: Routledge.

Gereffi, G. (1996), 'Commodity chains and regional divisions of labor in East Asia', *Journal of Asian Business*, Vol. 12, pp. 75-112.

Gereffi, G. and Korzeniewicz M. (eds) (1994), *Commodity Chains and Global Capitalism*. Westport, CT: Praeger.

- Geringer, J.M. (1990), 'Strategic Determinants of Partner Selection Criteria in International Joint Ventures', *Journal of International Business Studies*, Vol. 22, pp. 41-62.
- Gerlach, M.L. (1992), *Alliance Capitalism: The Social Organization of Japanese Business*. Berkeley, CA: University of California Press.
- Gerschenkron, A. (1962), *Economic Backwardness in Historical Perspective*. Cambridge, MA: Harvard University Press.
- Gibb Dyer, W. and Wilkins, A. (1991), 'Better Stories, Not Better Constructs, to Generate Better Theory: A Rejoinder to Eisenhardt', *Academy of Management Review*, Vol. 16, No. 3, pp. 613-619.
- Giddens, A. (1994), *Beyond Right and Left*. Stanford: Stanford University Press.
- Gill, J. and Johnson, P. (1977), *Research Methods for Management*, Second Edition. London: Paul Chapman Publishing Ltd.
- Glaser, B.G and Strauss, A.L. (1967), *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago, IL: Aldine Publishing Company.
- Gold, Th. B. (1986), *State and Society in the Taiwan Miracle*. Armonk, NY: M.E. Sharpe, Inc.
- Gold, Th. B. (1988), 'Entrepreneurs, Multinationals and the State', in E. Winkler and S. Greenhalgh (eds), *Contending Approaches to the Political Economy of Taiwan*. Armonk, NY: M.E. Sharpe, Inc.
- Gomes-Casseres, B. (1989), 'Ownership Structures of Foreign Subsidiaries', *Journal of Economic Behavior and Organization*, Vol. 11, pp. 1-25.
- Gomes-Casseres, B. (1997), 'Alliance strategies of small firms', *Small Business Economics*, Vol. 9, No. 1, pp. 33-44.
- Goodnow, J.D. and Hanz, J.E. (1972), 'Environmental Determinants of Overseas Market Entry Strategies', *Journal of International Business Studies*, Vol. 3, pp. 33-50.
- Haahti, A. (1998), 'Interstratos - A Pioneering Project on Internationalization of SMEs in Europe', in A. Haahti, G. Hall, and R. Donckels (eds), *The Internationalization of SMEs: The Interstratos project*. London: Routledge.

Hagedoorn, J. (1993), 'Understanding the rationale of strategic technology partnering: Interorganizational modes of cooperation and sectoral differences', *Strategic Management Journal*. Vol. 14, pp. 371-385.

Hamilton, G. (1997), 'Organisation and Market Processes in Taiwan's Capitalist Economy', in M. Orru, N. W. Biggart and G. Hamilton, *The Economic Organization of East Asian Capitalism*. Thousand Oaks, CA: Sage Publications, Inc.

Handotai Sangyo Shinbun (The Semiconductor Industry News), 'PCB Yo Doriru no Hanbai ga Gensoku: Renketsu Toshi wa 31 Oku En' (PCB Drill Sales Decelerating: Consolidated Investments of ¥3.1 billion), September, 2001.

Harrigan, K. (1984), 'Joint Ventures and Global Strategies', *Columbia Journal of World Business*, Vol. 19, No. 2, pp. 7-16.

Harvey, J.W. (1979), 'Evaluative Conflict and Information Search in the Adoption Process', *Advances in Consumer Research*, Vol. 6, pp. 209-213.

Hashimoto, H. (2000), *Machi-koba ga Horobitara Nihon mo Horobiru: Monozukuri de Kachinokoru Joken* (If the Small Town Factories are Destroyed Japan will also be Destroyed: Terms of Survival by Making Things). Tokyo: PHP Research Centre.

Hatch, W. and Yamamura, K. (1996), *Asia in Japan's Embrace: Building a Regional Production Alliance*. Cambridge: Cambridge University Press.

Held, D., McGrew, A., Goldblatt, D. and Parraton, J. (1999), *Global Transformations: Politics, Economics and Culture*. Cambridge: Polity Press.

Henderson, J., Dicken, P., Hess, M., Coe, N. and Yeung, H. W-C. (2001), *Global Production Networks and the Analysis of Economic Development*, GPN Working Paper 1, Manchester Business School, University of Manchester.

Herbig, P. (1995), *Innovation Japanese Style: A Cultural and Historical Perspective*. Westport, CT: Quorum Books.

Hibbert, E. (1997), *International Business: Strategy and Operations*. London: Macmillan Press Limited.

Hibi, T. (2002), *Shitauke o Yamete: Nitchi o Mezase!!* (Stop Subcontracting: Go for the Niche!!). Tokyo: Wedge.

Higgott, R. (1999), 'The political economy of globalisation in East Asia: The salience of 'region building'', in K. Olds, P. Dicken, P. Kelly, L. Kong and H. W-C. Yeung (eds), *Globalisation and the Asia-Pacific: Contested Territories*. London: Routledge, pp. 91-106.

Hiramatsu, S. (1998), 'Ajia Shinshutsu Kigyo no Kokusai Hikaku to Nihon Kigyo Shinshutsu no Shorai Tenbo' (International Comparison of Companies Advancing into Asia and the Future Outlook for Investing Japanese Companies), in S. Suzuki (ed), *Nihon Kigyo no Ajia Shinshutsu* (Japanese Companies Advancing into Asia). Tokyo: Zeimu Keiri Kyokai.

Hirsch, S. (1976), 'An International Trade and Investment Theory of the Firm', *Oxford Economic Papers*, Vol. 28, July, pp. 258-270.

Hobday, M. (1995), *Innovation in East Asia*. Cheltenham, UK and Northampton, MA: Edward Elgar

Hodo, C. and Xie, D-M. (1995), *Chugoku de Kigyo o Sodateru Hiketsu* (Creating a Successful Company in China). Tokyo: Toyo Keizai Shinposha.

Hofstede, G. (1984), 'Cultural dimensions in management and planning', *Asia Pacific Journal of Management*, Vol. 1, No. 2, pp. 81-99.

Howe, C. (1996), *The Origins of Japanese Trade Supremacy*. Chicago, IL: The University of Chicago Press.

Hsing, Y-T. (1998), *Making Capitalism in China: The Taiwan Connection*. Oxford: Oxford University Press.

Hu, Z-L. (2000), 'Shin Qian Nian Liming zhong de Zhongguo' (China at the Dawn of a New Millennium), in A-G. Hu (ed), *Zhongguo Zouxian* (Prospects of China). Hangzhou: Zhejiang Renmin Chubanshe, pp. 86-108.

Huang, X. (2001), 'Contested State and Competitive State: Managing the Economy in a Democratic Taiwan', in X. Huang (ed), ), *The Political and Economic Transition of East Asia: Strong Market, Weakening State*. Richmond, Surrey: Curzon Press, pp. 136-175.

Hymer, S. (1976), *The International Operations of National Firms: A Study of Direct Foreign Investment*. Cambridge, MA: MIT Press.

Ibuki, M. (1994), *Chusho Kigyo no Kaigai Keiei Senryaku* (Overseas Business Strategies of SMEs). Tokyo: Doyukan K.K.

Ichimura, S. (1998), *Political Economy of Japanese and Asian Development*. Tokyo: Springer-Verlag.

Imada, T. and Sonoda, S. (1995), 'Nihon e no Manazashi' (Looking to Japan), in T. Imada and S. Sonoda (eds), *Ajia kara no Shisen* (The View from Asia). Tokyo: Tokyo University Publishers.

Inagaki, K. (1994), 'Chugoku no Taigai Kaiho Seisaku to Gaishi Kigyo' (China's Open-door Policy and Foreign-Invested Enterprises), in *Chugoku Bijinesu no Ruru* (The Basics of Business in China). Tokyo: Mitsubishi Research Institute.

Interchange Institute (1999), 'Zai Taiwan Nikkei Kigyo no Keiei Jittai o Miru (3)' (Looking at Business Situation of Japan-invested Firms in Taiwan (3)), *Koryu*, No. 595, April 15, pp. 15-24. Tokyo: Zaidan Hojin Koryu Kyokai (Interchange Institute).

Ishii, M. (1992), *Nihon Kigyo no Kaigai Jigyo Tenkai* (Overseas Business Strategies of Japanese Enterprises). Tokyo: Chuo Keizaisha.

Ishida, H. (1999), *Taiwan Keizai no Kozo to Tenkai* (Structure and Development of the Taiwan Economy). Tokyo: Otsuki Shoten Publishers.

Itoh, Y. (1999), 'Zaisei Kinyu Shisutemu' (The Financial Funding System), in A. Se and T. Asamoto (eds), *Taiwan Keizai Ron: Keizai Hatten to Kozo Tenkan* (The Taiwanese Economy: Economic Development and Structural Transformation). Tokyo: Keiso Shobo K.K.

Japan Small Business Corporation (1998), *Kaigai Tenkai Chusho Kigyo Jittai Chosa Hokokusho* (Survey Report of the Conditions of SMEs Developing Overseas). Tokyo: Survey and International Department, Japan Small Business Corporation.

JCP - Japan Company Handbook (1999, 2002). Tokyo: Toyo Keizai Inc.

Jessop, B. (1999), 'Reflections on globalisation and its (il)logic(s)', in K. Olds, P. Dicken, P. Kelly, L. Kong and H. W-C. Yeung (eds), *Globalisation and the Asia-Pacific: Contested Territories*. London: Routledge, pp. 19-38.

JETRO (1996), *1997 Jietoro Hakusho Toshi Hensoron* (1997 JETRO White Paper on Foreign Direct Investment). Tokyo.

JETRO (1998), *Jetro White Paper on Foreign Direct Investment 1998*. Tokyo.

Jingji Ribao (2001a), 'Fujitsu PDA Dingdan Ni Zhuan Tai' (Plan for Fujitsu PDA Order Shift to Taiwan), February 2.

- Jingji Ribao (2001b), 'Toshiba Dui Tai Caigou Jiang Da 440 Yi Yuan' (Toshiba's Taiwan Purchasing to Reach NT\$44.8 Billion), February 13.
- Jin, H-F. (1995), *Chugoku Keizaiken* (The Chinese Economic Area). Tokyo: The Simul Press, Inc.
- Johanson, J. and Mattsson, L.-G. (1987), 'Internationalization in Industry System: A network approach', in N. Hood and J.-E. Vahlne (eds), *Strategies in Global Competition*. London: Routledge.
- Johanson, J. and Vahlne, J.-E. (1977), 'The internationalisation process of the firm: a model of knowledge development and increasing foreign commitments', *Journal of International Business Studies*, Vol. 8, No. 1, pp. 23-32.
- Johanson, J. and Vahlne, J.-E. (1990), 'The Mechanism of Internationalization', *International Marketing Review*, Vol. 7, No. 4, pp. 11-24.
- Johanson, J. and Wiedersheim-Paul, F. (1975), 'The Internationalization of the Firm - Four Swedish Cases', *The Journal of Management Studies*, Vol. 12, No. 3, pp. 305-322.
- Johnson, C. (1982), *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925-1975*. Tokyo: Charles E. Tuttle Co.
- Jones, A. (1987), *The Art of War in the Western World*. Oxford: Oxford University Press.
- Jones, M., Wheeler, C. and Young, S. (1992), 'European Marketing and Distribution in the 1990s: The Case of the Machine Tool Industry in the UK', *European Journal of Marketing*, Vol. 26, No. 7, pp. 17-33.
- Jovanovic, M.N. (1998), *International Economic Integration: Limits and Prospects*, Second Edition. London: Routledge.
- Julien, P.-A. (1997), 'Introduction' and 'Conclusion', in P.-A. Julien (ed), *Les PME: Bilan et Perspectives*, deuxième édition (SMEs: Assessment and Outlook, Second Edition). Québec, Canada: Les Presses Inter Universitaires.
- Kage, T. (1991), *Yuryo Chuken Kigyo e no Michi: Sono Henshin no Susumekata* (The Road to the Superior Leading Middle-Sized Enterprise: How to Proceed with the Transformation). Tokyo: Daisan Shuppan, KK.
- KSK - Kaigai Shinshutsu Kigyo Soran (Survey of Companies Investing Overseas) (2001). Toyo Keizai Inc.

Kaneko, I. (1998), 'Kankoku Kigyo no Gijutsu Kakushin no Kadai to Nihon Kigyo no Kankoku Shinshutsu' (Problems of Technological Innovation by Korean Companies and Japanese Companies Investing in Korea', in S. Suzuki (ed), *Nihon Kigyo no Ajia Shinshutsu* (Advance of Japanese Companies into Asia). Tokyo: Zeimu Keiri Kyokai.

Kaynak, E. and Kothari, J. (1984), 'Export Behavior of Small and Medium-Sized Manufacturers', *Management International Review*, Vol. 2, pp. 61-69.

Keieisha Kaiho (1990), 'Kyuseicho Kigyo Shacho ga Tsuzuru: Seicho no Yorokobi to Kurushimi' (What the Presidents of Fast Growth Companies Say: The Joys and Vexations of Growth), November Edition.

Kerlinger, F. (1986), *Foundations of Behavioral Research*, Third Edition. New York, NY: CBS College Publishing.

Keynes, J.M. ([1938]1973), *The Collected Writings of John Maynard Keynes. Vol. XIV. The General Theory and After*, D. Moggridge (ed). London: Macmillan.

Kim, J-I. and Lau, L. (1993), 'The Sources of Economic Growth of the East Asian Newly Industrializing Countries. Asia/Pacific Research Center, Stanford University, September.

Kim, W-S. and Lyn, E.O. (1989), 'FDI Theories and the Performance of Foreign Multinationals Operating in the U.S.', *Journal of International Business Studies*, Vol. 21, pp. 41-53.

Kishi, N. (1990), *Sekai-Ichi Kigyo* (World No. 1 Companies). Tokyo: Nihon Noritsu Kyokai.

Kitamura, K. (1990), 'Boeki Torihiki oyobi Kaigai Toshi no Jiyuka to Ho no Taio' (Liberalisation of Trading and Foreign Investment and their Accommodation in the Law'), in T. Okita (ed), *Ajia NIEs no Keizai Katsudo no Kokusaika to Ho Seibi: Ho to Seisaku no Kokusaiteki Chosei* (Internationalisation of Economic Activities of Asian NIEs and the Legal Framework: International Adjustment of Law and Policy). Tokyo: Ajia Keizai Shuppankai.

Kiyonari, T. (1970), *Nihon Chusho Kigyo no Kozo Hendo* (Structural Changes in Japan's SMEs). Tokyo: Shin Hyoron.

Klein, D.W. (1992), 'The Political Economy of Taiwan's International Commercial Links', in D. Simon and M. Kau (eds), *Taiwan: Beyond the Economic Miracle*. Armonk, NY: M.E. Sharpe, Inc.

- Kneen, B. (1995), *Invisible Giant: Cargill and its Transnational Strategies*. London: Pluto Press.
- Knickerbocker, F.T. (1974), *Oligopolist Reaction and Multinational Enterprise*. Cambridge, MA: Harvard Business School Division of Research.
- Kobayashi, H. (1995), 'Going Offshore: Asian Strategies of Mid-Sized Japanese Companies', *NRI Quarterly*, Summer, pp. 34-61.
- Kogut, B. and Singh, H. (1988), 'The Effect of National Culture on the Choice of Entry Mode', *Journal of International Business Studies*, Fall, pp. 411-432.
- Kojima, K. (1973), 'A Macroeconomic Approach to Foreign Direct Investment', *Hitotsubashi Journal of Economics*, Vol. 14, pp. 1-21.
- Kojima, K. (1990), *Japanese Direct Investment Abroad*. Tokyo: International Christian University, Monograph Series 1.
- Kotabe, M. and Omura, G. (1989), 'Sourcing Strategies of European and Japanese Multinationals: A Comparison', *Journal of International Business Studies*, Vol. 20, No. 1 (Spring), pp. 113-130.
- Krugman, P. (1979), 'Increasing returns, monopolistic competition, and international trade', *Journal of International Economics*, Vol. 9, pp. 469-479.
- Krugman, P. (1994), 'The Myth of Asia's Miracle', *Foreign Affairs*, Vol. 73, No. 6, November/December.
- Krugman, P. (1995), *Development, Geography, and Economic Theory*. Cambridge, MA: The MIT Press.
- Ku, Y-H. (1998), 'Economic Effects of Taiwanese FDI on Host Countries', in T-J. Chen (ed), *Taiwanese Firms in Southeast Asia: Networking Across Borders*. Cheltenham, UK and Northampton, MA: Edward Elgar.
- Kuhn, R.L. (1985), *To Flourish among Giants: Creative Management for Mid-Sized Companies*. New York, NY: John Wiley & Sons.
- Kuroda, K. (1995), 'Thailand' in 'Cover Story: Current and Future Investment Outlook in Asia,' *Japanese Journal of Trade and Industry*, No. 2.
- Kurose, N. (1997), *Chusho Kigyo Seisaku no Sokatsu to Teigen* (Resume and Proposals concerning Small and Medium Enterprise Policy). Tokyo: Doyukan.



Kyoto Shinbun (2001), 'Kyoto Sangyo Fudoki, 49' (The Kyoto Industrial Scene), May 11.

Lancaster, K.J. (1980), 'Intra-industry trade under perfect monopolistic competition', *Journal of International Economics*, Vol. 10, pp. 151-175.

Lane, C. (1992), 'European Business Systems: Britain and Germany Compared', in R. Whitley (ed), *European Business Systems: Firms and Markets in their National Contexts*. London: Sage Publications Ltd.

Lee, W.T. and Brusch, J.J. (1978), 'The Adoption of Export as an Innovative Strategy', *Journal of International Business Studies*, Vol. 5, pp. 85-93.

Lincoln, E. (1993), *Japan's New Global Role*. Washington, DC: The Brookings Institution.

Liu, J-Q. (1992), *Taiwan Zhanhou Jingji Fenxi* (Analysis of Taiwan's Postwar Economy). Taipei: Renjian Chubanshe.

Liu, R-J. (1996), *Riben Qiye de Liang'an Touzi Celue* (Cross-Straits Investment Strategies of Japanese Firms). Taipei, R.O.C.: Lianjing.

Liu, R-J. (1998), 'Taiwan Nikkei Kigyo no Hatten to Tenbo' (Development of and Outlook for Japanese Companies in Taiwan), in S. Suzuki (ed), *Nihon Kigyo no Ajia Shinshutsu* (Advance of Japanese Companies into Asia). Tokyo: Zeimu Keiri Kyokai.

Liu, W-F. (1999), 'Keizai Seisaku to Kaihatsu Keikaku' (Economic Policy and Development Planning), in A. Se and T. Asamoto, *Taiwan Keizai Ron: Keizai Hatten to Kozo Tenkan* (The Taiwanese Economy: Economic Development and Structural Transformation). Tokyo: Keiso Shobo K.K.

Lu, W-G. (1995), 'The Internationalisation of Japanese Textile Production Networks', in E. Docherty (ed), *Japanese Investment in Asia: International Production Strategies in a Rapidly Changing World*. San Francisco, CA: BRIE.

Luostarinen, R. (1980), *The Internationalization of the Firm*. Helsinki: The Helsinki School of Economics.

Machine Promotion Association (1993), *Denki . Denshi Kikai Sangyo ni okeru Seisan Taisei Henka to Shitauke Kigyo no Taio ni kan suru Chosa Kenkyu* (Survey concerning the Changes in the Production System in the Electrical and Electronic Machinery Industries and How Subcontracting SMEs are Responding), Economic Research Center, Machine Promotion Association.

- Marer, P. and Montias, J. (1988), 'The Council for Mutual Economic Assistance', in A. El-Agraa (ed), *International Economic Integration*. London: Macmillan.
- Marshall, A. (1920), *Principles of Economics*, Eighth Edition. Basingstoke and London: Macmillan Press Ltd.
- Mason, M. (1996), *The Origins and Evolution of Japanese Direct Investment in East Asia*. Cambridge, MA: Center for International Studies, MIT.
- McManus, J.C. (1972), 'The Theory of the International Firm', in C. Paquet (ed), *The Multinational Firm and the Nation State*. Toronto: Collier-Macmillan.
- Meaney, C.S. (1994), 'State Policy and Taiwan's Semiconductor Industry', in J. Aberbach, D. Dollar and K. Sokoloff (eds), *The Role of the State in Taiwan's Development*. Armonk, NY: M.E. Sharpe, Inc.
- Meyer, J.M. and Rowan, B. (1977), 'Institutionalized Organizations: Formal Structure as Myth and Ceremony', *The American Journal of Sociology*, Vol. 83, No. 2, pp. 340-363.
- Miesenbock, K.A. (1988), 'Small Business and Exporting: A Literature Review', *International Small Business Journal*, Vol. 6, No. 2, pp. 42-58.
- Millington, A.I. and Bayliss, B.T. (1990), 'The Process of Internationalization: UK Companies in the EC', *Management International Review*, Vol. 30, No. 2, pp. 151-161.
- Ministry of Economic Affairs (various years), *Statistics on Overseas Chinese and Foreign Investment*. Taipei, ROC: Investment Commission, Ministry of Economic Affairs.
- Mintzberg, H. (1979), 'The Emerging Strategy of 'Direct' Research', *Administrative Science Quarterly*, Vol. 24, December, pp.582-9.
- Miyanaga, K. (2000), *Gurobaruka to Aidentetei* (Globalisation and Identity). Kyoto: Sekai Shisoshia.
- Miyashiro, K. (1999), 'Chokusetsu Toshi to Keizai Hatten' (Direct Investment and Economic Development), in A. Se and T. Asamoto, *Taiwan Keizai Ron: Keizai Hatten to Kozo Tenkan* (The Taiwanese Economy: Economic Development and Structural Transformation). Tokyo: Keiso Shobo K.K.
- MKB – Mijojo Kaisha Ban (Unlisted Company Edition) (2000, 2002). Tokyo: Toyo Keizai Inc.

Morris-Suzuki, T. (1992), 'Japanese Technology and the New International Division of Knowledge in Asia', in S. Tokunaga (ed), *Japan's Foreign Investment and Asian Economic Interdependence*. Tokyo: Tokyo University Press.

Morris-Suzuki, T. (1994), *The Technological Transformation of Japan: From the Seventeenth to the Twenty-first Century*. Cambridge: Cambridge University Press.

Muramatsu, M. (1997), *Local Power in the Japanese State*. Berkeley and Los Angeles, CA: University of California Press.

Myers, R. (1986), 'The Economic Development of the Republic of China on Taiwan, 1965-1981', in L. Lau (ed), *Models of Development: A Comparative Study of Economic Growth in South Korea and Taiwan*. San Francisco, CA: Institute for Comparative Studies.

Myers, R. (1996), 'Introduction', in L. Hollerman and R. Myers (eds), *The Effect of Japanese Investment on the World Economy: A Six-Country Study, 1970-1991*. Stanford, CA: Hoover Institution Press, Stanford University.

Nakamura, H. (1962), *Chuken Kigyo Ron* (Leading Medium-Sized Enterprise Theory). Tokyo: Toyo Keizai Shinposha.

Nakamura, H. (1990), *Shin Chuken Kigyo Ron* (New Leading Medium-Sized Enterprise Theory). Tokyo: Toyo Keizai Shinposha.

Nelson, R. and Winter, S. (1982), *An Evolutionary Theory of Economic Change*. Cambridge, MA: Belknap Press.

Népote, J. and de Vienne, M-S. (1999), *Japon: Une stratégie pour le XXIe siècle*. Paris: Péninsule/CHEAM.

Newbould, G., Buckley, P. and Thurwell, P. (1978), *Going International: The experience of smaller companies overseas*. New York: John Wiley & Sons Inc.

Newman, W.H. (1992), 'Launching a Viable Joint Venture', *California Management Review*, Fall, pp. 68-80.

NKJ – Nihon Kaisha Joho (Japan Company Information) (1999). Tokyo: Nihon Keizai Shinbun.

Nihon Keizai Shinbun (2001), 'Renzoku Uriagedaka Keiei Riekiritsu 100 sha Rankingu: Denki Ote ga Joi' (Ranking for Top 100 in Consolidated Sales Operating Profit Ratios: Large Electrical Firms at the Top), August 15.

Nihon Keizai Shinbun (2002), 'Seizogyo 7 sha ni 1 sha Kaigai e: Seisan Iten Chugoku e 4 wari' (One Out of 7 Manufacturers Going Abroad: 40% Production Transfer to China), February 7.

Nihon Keizai Shinbun (2002), 'Yokogawa Denki 15 Kojo Heisa' (Yokogawa Electric Closing 15 Plants), October 12.

Nihon Keizai Shinbun (2002), 'Jiyu Boeki Kyotei: Chugoku, Nichikan de Teiketsu Teian (Free Trade Agreement: China Proposes Japan, China, South Korea Pact), November 5.

Nihon Keizai Shinbun (2002), 'East Asia and its Trade Flows' (map), November 6.

Nihon Keizai Shinbun (2003), 'Toyota, Sekai de Joho Kyoyu: 2000 oku yen toji shin shishutemu' (Toyota, Common Information System Worldwide: 200 trillion yen investment in new system), June 10.

Nihon Noritsu Kyokai (2001), *Kyoso Yui o Mezasu: Monozukuri Keiei Kakushin* (Seeking Competitive Superiority: Business Innovation for Making Things). Tokyo: Nihon Noritsu Kyokai Management Center.

Nikkei Kin'yu Shinbun (The Nikkei Financial Daily) (2002), 'Yunion Tsuuru: Konshu no mo Kaigai IR: Oshu no Kikai Toshika Taisho' (Union Tool: Overseas IR this Autumn Again: Targeting European Institutional Investors), April 16.

Nikkei Sangyo Shinbun (1982), 'Kyokusho Choko Doriru Sekai Kyokyu: Beikoku ni Seisan Kyoten' (Supplying the World with Extremely Small Super-Hard Drills: Production Base in America), February 16.

Nikkei Sangyo Shinbun (1982), 'Kyokusho Choko Doriru Sekai Kyokyu: Shitauke kara Dappi' (Supplying the World with Extremely Small Super-Hard Drills: Shedding the Subcontracting Role), February 17.

Nikkei Sangyo Shinbun (1982), 'Kyokusho Choko Doriru Sekai Kyokyu: Seihin Takakuka ni Hashiru' (Supplying the World with Extremely Small Super-Hard Drills: Launching into Product Diversification), February 18.

Nikkei Sangyo Shinbun (The Nikkei Business Daily) (2002), 'Kono Hito to 5 Funkan: Yunion Tsuuru Shacho, Takao Katayama' (5 Minutes with this Person: Union Tool President, Takao Katayama), February 27.

Nikkei Sangyo Shinbun (2002), 'Tanaka Kikinzoku: Hakkin Mekki Eki Kaihatsu' (Tanaka Kikinzoku: Development of a Platinum Coating Fluid), April 25.

Noble, G. (1998), *Collective Action in East Asia: How Ruling Parties Shape Industrial Policy*. Ithaca, NY: Cornell University Press.

NRI (1992a), *Midoru Saijingu Jidai no Kigyo Keiei* (Enterprise Management in the Age of Middle Sizing). Tokyo: Nomura Research Institute.

NRI (1992b), *Chuken Kigyo Hakusho* (Leading Medium-sized Enterprise White Paper). Tokyo: Nomura Research Institute.

NRI (1994), *Ajia no Sangyo Katsudo Tenkai ni kan suru Chosa Kenkyu* (Survey Research concerning Industrial Activity Development in Asia). Tokyo: Kikai Shinko Kyokai Keizai Kenkyujo.

NRI (1997), *Nihon Kigyo no Ajia Jigyo ni okeru Taiwan Kyoten no Yakuwari* (Role of Taiwan Bases of Japanese Companies in their Asian Undertakings). Taipei: Nomura Research Institute.

Ohmae, K. (1985), *Triad Power*. New York, NY: The Free Press.

Ohmae, K. (1995), *The End of the Nation: The Rise of Regional Economies*. New York, NY: Free Press Paperbacks.

Okazaki, T. and Okuno-Fujiwara, M. (1999), 'Japan's Present-Day Economic System and Its Historic Origins', in T. Okazaki and M. Okuno-Fujiwara (eds), *The Japanese Economic System and its Historical Origins*. Oxford: Oxford University Press.

Okuyama, T. (1995), 'Tairitsu suru Joshiki: Nichu kan no Chishiki Kankaku no Chigai to Komyunikeshion no Otoshiana' (Conflicting Notions of Common Sense: Differences in Sense of Organisation and Pitfalls in Communication between the Japanese and Chinese), in T. Imada and S. Sonoda (eds), *Ajia kara no Shisen* (The View from Asia). Tokyo: Tokyo University Publishers.

O'Rourke, A.D. (1985), 'Differences in Export Practices, Attitudes and Problems by Size of Firm', *American Journal of Small Business*, Vol. 9, No. 3, pp. 25-29.

Ozawa, T. (1979a), *Multinationalism, Japanese Style: The Political Economy of Outward Dependency*. Princeton, NJ: Princeton University Press.

Ozawa, T. (1979b), 'International Development and Industrial Structure: New Theoretical Implications from the Japanese Experience', *Oxford Economic Papers*, Vol. 31, pp. 72-92.

Ozawa, T. (1985), *International Transfer of Technology by Japan's Small and Medium Enterprises in Developing Countries*. Geneva: UNCTAD.

Ozawa, T. (1992), 'FDI and Economic Development', *Transnational Corporations*, Vol. 1, pp. 27-54.

Ozawa, T. (1993), 'Foreign direct investment and structural transformation: Japan as a recycler of market and industry', *Business & the Contemporary World*, Vol. 5, No. 2, pp. 129-50.

Patrick, H. and Rohlen, T. (1987), 'Small-Scale Family Enterprises', in K. Yamamura and Y. Yasuba (eds), *The Political Economy of Japan, Volume I: The Domestic Transformation*. Stanford, CA: Stanford University Press.

Pelaez-Ibarrondo, J.J. and Ruiz-Mercader, J. (2001), 'Measuring Operational Flexibility'. Paper presented at The Fourth SMESME International Conference, Aalborg University, Denmark, May 14-16.

Penrose, E. (1959), *The Theory of the Growth of the Firm*. Oxford: Basil Blackwell.

Piore, M.J and Sabel, C.F. (1984), *The Second Industrial Divide: Possibilities for Prosperity*. New York, NY: Basic Books.

Porter, M. (1980), *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York, NY: Free Press.

Porter, M. (1985), *Competitive Advantage: Creating and Sustaining Superior Performance*. New York, NY: Free Press.

Porter, M. (1990), *The Competitive Advantage of Nations*. London: Macmillan Press Ltd.

Porter, M. (1998), 'Clusters and the New Economics of Competition', *Harvard Business Review*, Vol. 76, No. 6 (November/December), pp. 77-90.

Porter, M., Takeuchi T. and Sakakibara, M. (2000), *Can Japan Compete?*. Basingstoke and London: Macmillan Press Ltd.

Pugh, D.S. (1988), 'The Astin research programme', in A. Bryman (ed), *Doing Research in Organizations*. London: Routledge & Kegan Paul.

Pussarungsri, B. (1998), 'Taiwanese Investment in Thailand', in T-J. Chen (ed), *Taiwanese Firms in Southeast Asia: Networking Across Borders*. Cheltenham, UK and Northampton, MA: Edward Elgar.

Puxty, A.G. (1979), 'Some evidence concerning cultural differentials in ownership policies of overseas subsidiaries', *Management International Review*, Vol. 19, pp. 39-50.

Rabino, S. (1980), 'An Examination of Barriers to Exporting Encountered by Small Manufacturing Companies', *Management International Review*, Vol. 20, No. 1, pp. 72-83.

Redding, S. (1991), 'Weak organizations and strong linkages: managerial ideology and Chinese family business networks'. in G. Hamilton (ed), *Business Networks and Economic Development in East and South East Asia*. University of Hong Kong: Centre for Asian Studies.

Régnier, P. (1991), *Singapore: City-State in South-East Asia*. London: C. Hurst & Co. (Publishers) Ltd.

Reid, S.D. (1981), 'The decision-maker and export entry and expansion', *Journal of International Business Studies*, Vol. 12, No. 2, pp. 101-112.

Reid, S.D. (1982), 'The Impact of Size on Export Behaviour of Small Firms', in M. Czinkota and G. Tesar (eds), *Export Management: An International Context*. New York, NY: Praeger, pp. 18-38.

Riedel, J. (1998), 'FDI by Small- and Medium-Sized Enterprises in Developed Countries', in T-Y. Chen (ed), *Taiwanese Firms in Southeast Asia: Networking Across Borders*. Cheltenham, UK and Northampton, MA: Edward Elgar.

Robic, P. and Bamberger, I. (1994), 'A Measure of the Diversification Strategy of SMEs', in I. Bamberger (ed), *Product/Market Strategies of Small and Medium-sized Enterprises*. Aldershot, U.K.: Avebury.

Robinson, R.C. (1978), *International Business Management: A Guide to Decision Making*, Second Edition. Hinsdale, IL: The Dryden Press.

Robson, P. (1987), *The Economics of International Integration*. London: George Allen & Unwin.

Rommel, G., Kluge, J., Kempis, R-D., Diederichs, R. and Bruck, F. (1995), *Simplicity Wins: How Germany's Mid-Sized Industrial Companies Succeed*. Boston, MA: Harvard Business School Press.

Root, F.R. (1987), *Entry Strategies for International Markets*. Lexington, MA: Lexington Books, D.C. Heath.

Rostow, W.W. (1960). *The Stages of Economic Growth: A Non-Communist Manifesto*. Cambridge: Cambridge University Press.

Roth, K. (1992), 'International Configuration and Coordination Archetypes for Medium-Sized Firms in Global Industries', *Journal of International Business Studies*, Vol. 23, March, pp. 533-549.

Rozman, G. (1991), 'Introduction: The East Asian Region in Comparative Perspective', in G. Rozman (ed), *The East Asian Region*. Princeton, NJ: Princeton University Press.

Sakamoto, Y. (1988), 'Toshi Kodo Shishin to Nihongata Zaikai Kigyo Keiei' (Investment Action Guidelines and Japanese Style Company Management Abroad), in T. Uchino and J. Abegglen (eds), *Tenki ni Tatsu Nihon Kigyo Keiei* (Japanese Enterprise Management at the Turning Point). Tokyo : Chuo Keizaisha.

Samuelson, P.A. (1948), *Foundations of Economic Analysis*. Cambridge, MA: Harvard University Press.

Sankei Shinbun (2002), 'Jukuren no Te ga Umu Miwaku no Kagayaki: Kin no Ingotto Kojo' (The Fascinating Glitter Produced by Skilled Hands: A Gold Ingot Plant), April 28.

Santikarn Kaosa-ard, M. (1996), 'Japanese Direct Investment in Thailand', in L. Hollerman and R. Myers (eds), *The Effect of Japanese Investment on the World Economy: A Six-Country Study, 1970-1991*. Stanford, CA: Hoover Institution Press, Stanford University.

Sassen, S. (1996), *Losing Control? Sovereignty in an Age of Globalisation*. New York, NY: Columbia University Press.

Sather, B. (2000), 'Geographical expansion within the paper industry'. Paper presented at the Global Conference on Economic Geography, National University of Singapore, December.

Sato, Y. (1999), 'Gijutsu Hatten to Gijutsu Seisaku' (Technology Development and Technology Policy), in A. Se and T. Asamoto (eds), *Taiwan Keizai Ron: Keizai Hatten to Kozo Tenkan* (The Taiwanese Economy: Economic Development and Structural Transformation). Tokyo: Keiso Shobo.

Saxenian, A. (1994), *Regional Advantage: Culture and competition in Silicon Valley and Route 128*. Cambridge, MA: Harvard University Press.



Schive, C. (1990), *The Foreign Factor: The Multinational Corporation's Contribution to the Economic Modernization of the Republic of China*. Stanford, CA: Hoover Press.

Schive, C. (1996), 'Japanese Direct Investment in the Republic of China', in L. Hollerman and R.H. Myers (eds), *The Effect of Japanese Investment on the World Economy: A Six-Country Study, 1970-1991*. Stanford, CA: Hoover Institution Press, Stanford University.

Schumpeter, J. (1997), *Ten Great Economists: From Marx to Keynes*. London: Routledge.

Scott, A.J. (1998), *Regions and the World Economy: The Coming Shape of Global Production, Competition, and Political Order*. Oxford: Oxford University Press.

Scott, A. and Angel, D. (1988), 'The Global Assembly of US Semiconductor Firms: A Geographical Analysis', *Environment and Planning A*, Vol. 19, pp. 875-912

Scott, M. (1979), 'Foreign Trade', in W. Galenson (ed), *Economic Growth and Structural Change in Taiwan: the Postwar Experience of the Republic of China*. Ithaca, NY: Cornell University Press.

Seale, C. (1999), *The Quality of Qualitative Research*. London: Sage Publications.

Seki, M. (1994), *Beyond the Full-Set Industrial Structure: Japanese Industry in the New Age of East Asia*. Tokyo: LTCB Library Foundation.

Seki, M. (1996), *Transcending the Full-Set Type Industrial Structure*. Tokyo: Chuokoron.

Sengenberger, W., Loveman, G.W. and Piore, M.J. (1990), *The Re-emergence of Small Enterprises: Industrial Restructuring in Industrialized Economies*. Geneva: International Labour Organisation.

Servoise, R. (1995), *Japon - Les Clés pour Comprendre* (The Key Points for Understanding Japan). Paris: Plon.

Sharma, D.D. and Johanson, J. (1987), 'Technical consultancy in internationalization', *International Marketing Review*, Winter, pp. 20-29.

Shieh, G.S. (1992), *'Boss' Island: The Subcontracting Network and Micro-Entrepreneurship in Taiwan's Development*. New York: Peter Lang Publishing, Inc.

Silin, R.H. (1976), *Leadership and Values: The Organization of Large-Scale Taiwanese Enterprises*. Cambridge, MA: East Asian Research Center, Harvard University Press.

Simmonds, K. and Smith, H.(1968), 'The First Export Order: A Marketing Innovation', *British Journal of Marketing*, No. 2, pp. 93-100.

Simon, D. (1992), 'Taiwan's Emerging Technology Trajectory: Creating New Forms of Competitive Advantage', in D. Simon and M. Kau (eds), *Taiwan: Beyond the Economic Miracle*. Armonk, NY: M.E. Sharpe, Inc.

Simon, H. (1992), 'Lessons from Germany's Midsize Giants', *Harvard Business Review*, Vol. 70, No. 3, March/April, pp. 115-23.

Simon, H. (1996), *Hidden Champions: Lessons from 500 of the World's Best Unknown Companies*. Boston, MA: Harvard Business School Press.

Simpson, C.L. and Kujawa, D. (1974), 'The Export Decision Process: An Empirical Inquiry', *Journal of International Business Studies*, Vol. 5, Spring/Summer, pp. 107-117.

Siu, W-S. and Kirby, D.A. (1998), 'Approaches to Small Firm Marketing: A Critique', *European Journal of Marketing*, Vol. 32, No. 1/2, pp. 40-60.

Smallbone, D., North, D. and Leigh, R. (1992), 'Managing Change for Growth and Survival: The Study of Mature Manufacturing Firms in London during the 1980s', Working Paper No. 3, Planning Research Centre, Middlesex Polytechnic.

SME Agency (1995), *Chusho Kigyo Hakusho 1995* (SME White Paper 1995). Tokyo: Ministry of Finance.

Smith, A. (1775 [1993]), *An Inquiry into the Nature and Causes of the Wealth of Nations*. Oxford: Oxford University Press.

Smith, H. (2000), *Industry Policy in Taiwan and Korea in the 1980s: Winning with the Market*. Cheltenham, UK and Northampton, MA: Edward Elgar.

Steinmann, H., Kumar, B. and Wasner, A. (1980), 'Conceptualising the Internationalisation Process of Medium-Sized Firms: Some Preliminary Considerations for a Research Design', *Management International Review*, Vol. 20, No. 1, pp. 56-66.

Storey, D. (1994), *Understanding the Small Business Sector*. London: Routledge.

- Sugioka, S. (2001), *Shin Taiwan no Kiseki* (The New Taiwan Miracle). Tokyo: Ryokufu Shuppan.
- Sullivan, D. and Bauerschmidt, A. (1990), 'Incremental Internationalization: A Test of Johanson and Vahlne's Thesis', *Management International Review*, Vol. 30, No. 1, pp. 19-30.
- Sum, N-L. (1999), 'Rethinking Globalisation: Re-articulating the spatial scale and temporal horizons of trans-border spaces', in K. Olds, P. Dicken, P. Kelly, L. Kong and H. W-C. Yeung (eds), *Globalisation and the Asia-Pacific: Contested Territories*. London: Routledge, pp. 129-145.
- Suzuki, S. (1998), 'Nihon Kigyo no Ajia Shinshutsu' (Advance of Japanese Companies into Asia), in S. Suzuki (ed), *Nihon Kigyo no Ajia Shinshutsu* (Advance of Japanese Companies into Asia). Tokyo: Zeimu Keiri Kyokai.
- Tachiki, D. (1995), 'Japanese Foreign Direct Investments and Production Strategies in the Pacific Region', in E. Doherty (ed), *Japanese Investment in Asia: International Production Strategies in a Rapidly Changing World*. San Francisco, CA: BRIE.
- Taylor, R. (1996), *Greater China and Japan*. London: Routledge.
- Teece, D, Pisano, G. and Shuen, A. (1990), *Firm Capabilities, Resources and the Concept of Strategy*. CCC Working Paper No. 90-98, University of California, Berkeley.
- Teraoka, H. (1998), *Nihongata Chusho Kigyo* (The Japanese-style SME). Tokyo: Shinsansha.
- Thomas, M.J. and Araujo, L. (1985), 'Theories of Export Behaviour: A Critical Analysis', *European Journal of Marketing*, Vol. 19, No. 2, pp. 42-52.
- Tilton, M. (1996), *Restrained Trade: Cartels in Japan's Materials Industries*. Ithaca, NY: Cornell University Press.
- Tokunaga, S. (1992), 'Japan's FDI-Promoting Systems and Intra-Asia Networks: New Investment and Trade Systems Created by the Borderless Economy', in S. Tokunaga (ed), *Japan's Foreign Investment and Asian Economic Independence*. Tokyo: Tokyo University Press.
- Tsuru, S. (1993), *Japan's Capitalism*. Cambridge: Cambridge University Press.

Turnbull, P.W. (1987), 'A challenge to the stages theory of the internationalization process', in P.J. Rosson and S.D. Reid (eds), *Managing Export Entry and Expansion*. New York, NY: Praeger Publishers.

Ueda, H. (2000) (ed), *Sangyo Shuseki to Chusho Kigyo: Higashi-Osaka Chiiki no Kozo to Kadai* (Industrial Clustering and SMEs: Structure and Issues of Higashi-Osaka). Tokyo: Soufushiya.

Uematsu, T. (1990), *Nihon no Sentaku: Kokusai Kokka e no Michi* (Japan's Choices: The Road to the International State). Tokyo: Dobunkan.

UNCTAD (1993), *World Investment Report 1993: Transnational Corporations and Integrated International Production*. New York, NY: United Nations.

UNCTAD (1996), *Trade and Development Report 1996*. New York, NY: United Nations.

UNCTAD (1997), *World Investment Report: Transnational Corporations, Market Structure and Competition Policy*. New York, NY: United Nations.

UNCTAD (1999a), *World Investment Report 1999: Foreign Direct Investment and the Challenge of Development*. New York, NY: United Nations.

UNCTAD (1999b), *Trends in FDI and Ways and Means of Enhancing FDI Flows to and among Developing Countries*. New York, NY: United Nations.

Urata, S. (1994), 'Globalisation and Regionalisation in the Pacific-Asia Region', in E.M. Doherty (ed), *Japanese Investment in Asia: International Production Strategies in a Rapidly Changing World*. San Francisco, CA: The Asia Foundation, BRIE.

Uriu, R. (1996), *Troubled Industries: Confronting Economic Change in Japan*. Ithaca, NY: Cornell University Press.

Van Hoesel, R. (1996), 'Taiwan: Foreign Direct Investment and the Transformation of the Economy', in J.H. Dunning and R. Narula (eds), *Foreign Direct Investment and Governments: Catalysts for economic restructuring*. London: Routledge.

Van Hoorn, Th. P. (1979), 'Strategic Planning in Small and Medium-Sized Companies', *Long Range Planning*, Vol. 2, pp. 84-91.

Vernon, R. (1966), 'International Investment and International Trade in the Product Cycle', *Quarterly Journal of Economics*, Vol. 80, pp. 190-207.

Vernon, R. (1979), 'The Product Cycle Hypothesis in a New International Environment', *Bulletin of Economic Statistics*, Vol. 41, pp. 255-267.

Vestal, J. (1993), *Planning for Change: Industrial Policy and Japanese Economic Development, 1945-1990*. Oxford: Oxford University Press.

Wade, R. (1990), *Governing the Market: Economic theory and the role of government in East Asian industrialisation*. Princeton, NJ: Princeton University Press.

Wade, R. (1996), 'Globalization and Its Limits: Reports of the Death of the National Economy Are Greatly Exaggerated', in S. Berger and R. Dore (eds), *National Diversity and Global Capitalism*. Ithaca, NY: Cornell University Press.

Wang, F.-Y. (1994), 'Reconsidering Export-Led Growth: Evidence from Firm Performance, Taiwan, 1983-1987', in J. Aberbach, D. Dollar and K. Sokoloff (eds), *The Role of the State in Taiwan's Development*. Armonk, NY: M.E. Sharpe, Inc.

Watanabe, S. (1992), *Chusho Kigyo Seisaku no Keisei Katei no Kenkyu* (A Study of the Process of Formulating SME Policy). Sogo Kenkyujo, Hiroshima Shudo Daigaku.

Weber, M. (1947), *The Theory of Social and Economic Organization*. New York, NY: The Free Press.

Weiss, L. (1998), *The Myth of the Powerless State*. Ithaca, NY: Cornell University Press.

Wells, L. (1983), *Third World Multinationals: The Rise of Foreign Investment from Developing Countries*. Cambridge, MA: MIT Press.

Welsh, J.A. and White, J.F. (1981), 'A Small Business is not a Little Big Business', *Harvard Business Review*, Vol. 59, No. 4, pp. 18-30.

Wheeler, D. and Mody, A. (1992) 'International Investment Location Decisions: the Case of US Firms', *Journal of International Economics*, Vol. 33, pp. 57-76.

Whitley, R. (1992b), *Business Systems in East Asia: Firms, Markets and Societies*. London: Sage Publications Ltd.

Whittaker, D.H. (1997), *Small Firms in the Japanese Economy*. Cambridge: Cambridge University Press.

- Wiedersheim-Paul, F., Olson, H.C. and Welch, L.S. (1978), 'Pre-Export Activity: The First Step in Internationalisation', *Journal of International Business Studies*, Spring/Summer, pp. 47-58.
- Williamson, O.E. (1975), *Markets and Hierarchies: Analysis and Antitrust Implications*. New York, NY: Free Press.
- Williamson, O.E. (1979), 'Transaction Cost Economics: The Governance of Contractual Relations', *Journal of Law and Economics*. Vol. 22, pp. 233-262.
- Williamson, O.E. (1985), *The Economic Institutions of Capitalism*. New York, NY: Free Press.
- Williamson, O.E. and Winter, A.G. (eds), (1993), *The Nature of the Firm: Origins, Evolution, and Development*. Oxford: Oxford University Press.
- Wind, Y., Douglas, S. and Perlmutter, H. (1973), 'Guidelines for Developing International Marketing Strategies', *Journal of Marketing*, Vol. 37, April, pp. 14-23.
- Winters, L.A. (1991), *International Economics*, Fourth Edition. London: Routledge.
- Wolf, B.M. (1977), 'Industrial diversification and internationalisation: some empirical evidence', *Journal of Industrial Economics*, Vol. 26, pp. 177-191.
- Womack, J., Jones, D. and Roos, D. (1990), *The Machine that Changed the World*. New York, NY: Macmillan Publishing Company.
- Wong, K-Y. and Yamamura, K. (1996), 'Japan's Direct Investment in the United States: Causes, Patterns, and Issues', in L. Hollerman and R. Myers (eds), *The Effect of Japanese Investment on the World Economy: A Six-Country Study, 1970-1991*. Stanford, CA: Hoover Institution Press, Stanford University.
- World Bank, The (1989), 'Foreign Direct Investment from the Newly Industrialized Economies', Industry and Energy Department, Industry Series Paper, No. 22. Washington, DC: World Bank.
- World Bank, The (1993), *The East Asian Miracle: Economic Growth and Public Policy*. New York, NY: Oxford University Press, Inc.
- Wu, R-Y. (1992), *Zhanhou Taiwan Gongying Shiye zhi Zhengfu Fenxi* (Analysis of Taiwan's Postwar Public Businesses and Government). Taipei: Yeqiang Chubanshe.

Wyer, P. and Smallbone, D. (1999), 'Export Activity in SMEs: A Framework for Strategic Analysis', *Academy of Business Administration*, Fall, Vol. 4, No. 4.

Yamauchi, S. (1998), 'Ajia Shokoku no Zeimu Seisaku to Nihon Kigyo' (Asian Country Taxation Policies and Japanese Companies), in S. Suzuki (ed), *Nihon Kigyo no Ajia Shinshutsu* (Advance of Japanese Companies into Asia). Tokyo: Zeimu Keiri Kyokai.

Yamamura, K. (1997), 'The Postwar Japanese Economy', in K. Yamamura (ed), *The Economic Emergence of Modern Japan*. Cambridge: Cambridge University Press.

Yatani, M. (1990), 'Kyoso Hosei no Seisei to Hatten: Kankoku.Taiwan o chushin ni' (Creation and Development of Competition Legislation: Focusing on South Korea and Taiwan), in T. Okita (ed), *Ajia NIEs no Keizai Katsudo no Kokusaika to Ho Seibi: Ho to Seisaku no Kokusaiteki Chosei* (The Internationalisation of the Economic Activities of Asian NIEs and the Legal Framework: International Realignment of Laws and Policies). Tokyo: Ajia Keizai Kenkyujo.

Yeung, H. W-C., Dicken, P., Henderson, J., Hess, M. and Coe, N. (2001), *Foreign Direct Investment, Trade, and Global Production Networks in Asia and Europe*, GPN Working Paper 1, Manchester Business School, University of Manchester.

Yin, R. (1994), *Case Study Research: Design and Methods*. Thousand Oaks, CA: Sage Publications, Inc.

Yonekura, M. (1988), 'Chuken, chusho denki kigyo no kaigai shinshutsu' (Overseas operations of LME and SME electrical firms), *Sekai Keizai Hyoron*, Vol. 32, No. 4, pp. 52-59.

Yong, W-Y. and Keng, K-A. (1990), 'Government and Technology Transfer: The Case of Singapore', *International Small Business Journal*, Vol. 10, No. 2, pp. 54-65.

Yoshihara, K. (1988), *The Rise of Ersatz Capitalism in Southeast Asia*. Singapore: Oxford University Press.

Yoshihara, K. (1994), *Japanese Economic Development*, Third Edition. Oxford: Oxford University Press.

ZNK – Zaika Nihon Kigyo Soran (Survey of Japanese Firms in China [Taiwan]) (1988). Taipei: Baker and McKenzie.

Zeithaml, V., Varadarajan, P. and Zeithaml, C. (1988), 'The Contingency Approach: Its Foundations and Relevance to Theory Building and Research in Marketing', *European Journal of Marketing*, Vol. 22, No. 7, pp. 37-64.

Zhao, C-M. (1995), *Yatai Diqu Jingji Fazhan Duoyanhua Yanjiu* (A Study of the Asia-Pacific Region's Development Diversification). Beijing: Beijing Normal University Publishing Company.

Zhou, T-C. and Lin, Z-C (1999), *Taiwan Zhongxiao Qiye de Fazhan Jizhi* (Development Mechanisms of Taiwan's Small and Medium Enterprises). Taipei: Lianjing Chuban Shiye Gongsi.